

1                         UNITED STATES DISTRICT COURT  
2                         FOR THE NORTHERN DISTRICT OF OHIO  
3                         EASTERN DIVISION

4                         IN RE: NATIONAL                       )  
5                         PRESCRIPTION                       ) MDL No. 2804  
6                         OPIATE LITIGATION               )  
7                         \_\_\_\_\_) Case No.  
8                         )  ) 1:17-MD-2804  
9                         THIS DOCUMENT RELATES           ) Hon. Dan A.  
10                        TO ALL CASES                       ) Polster

11                        THURSDAY, JUNE 20, 2019

12                        HIGHLY CONFIDENTIAL - SUBJECT TO FURTHER  
13  )  
14  CONFIDENTIALITY REVIEW

15                        - - -  
16                        Videotaped deposition of James  
17                        Hughes, Ph.D., held at the offices of  
18                        Covington & Burling, LLP, 620 Eighth Avenue,  
19                        New York, New York, commencing at 9:40 a.m.,  
20                        on the above date, before Carrie A. Campbell,  
21                        Registered Diplomate Reporter and Certified  
22                        Realtime Reporter.

23                        - - -  
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177 VIDEOPHOTOGRAPHER:  
178 DAN LAWLOR,  
179 Golkow Litigation Services

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5 Today's date is June 20, 2019,  
6 and the time is 9:40 a.m.

7                   This video deposition is being  
8                   held in New York City, New York, in  
9                   the matter of National Prescription  
10                  Opiate Litigation MDL Number 2804.

11 The deponent is James Hughes.

12 Counsel please identify  
13 yourselves beginning with plaintiffs.

14 MS. GEMAN: Good morning.

15                   Rachel Geman, Lieff Cabraser, for  
16                   plaintiffs.

17 MS. ORTIZ: Valerie Comenencia  
18 Ortiz, Lieff Cabraser as well.

19 MR. DOVE: Ron Dove, Covington  
20 & Burling, for McKesson Corporation.

21 MS. HAN: Anna Han, also from  
22 Covington & Burling for McKesson.

23 MR. GRADESS: Daniel  
24 Goldberg-Gradess with Dechert for  
25 Purdue.

3 MR. BAGHAI: Cameron Baghai  
4 from Johnson & Johnson on behalf of --  
5 pardon me, from O'Melveny & Myers  
6 behalf of the Johnson & Johnson and  
7 Janssen defendants.

8 MR. WEST: Robert West from  
9 Cavitch on behalf of Discount Drug  
10 Mart.

11 MS. NOWAK: Darlene Nowak,  
12 Marcus & Shapira, on behalf of HBC  
13 Services.

14 MR. CLARK: Miles Clark from  
15 Zuckerman Spaeder on behalf of the CVS  
16 defendants.

20  
21                    JAMES HUGHES, Ph.D.,  
22        of lawful age, having been first duly sworn  
23        to tell the truth, the whole truth and  
24        nothing but the truth, deposes and says on  
25        behalf of the Plaintiffs, as follows:

1 (Hughes Exhibit 1 marked for  
2 identification.)

3

4 DIRECT EXAMINATION

5 QUESTIONS BY MS. GEMAN:

6 Q. Good morning. We just met off  
7 the record, but again, my name is Rachel  
8 Geman.

11 A. Professor Hughes is fine.

12 Dr. Hughes is fine. Either one.

13 Q. Okay. Thanks.

14 I know you're a very  
15 experienced deponent, so let me just remind  
16 you that as with other depositions, you're  
17 testifying under oath.

18 Do you understand that?

19 A. I do.

20 Q. Is there any reason you can't  
21 testify truthfully today?

22 A. No, there's not.

23 I just would point out I have a  
24 medication that makes my hands shake.

25 Q. Okay.

1                   A.         So if I drink with two hands on  
2         the video, it doesn't mean anything is wrong  
3         with me, especially after the last attempt at  
4         the deposition.

5                   Q.         Okay. We won't --

6                   A.         But other than that.

7                   Q.         I understand. We won't think  
8         you're nervous or anything.

9                   A.         Okay.

10                  Q.         I'm someone who gesticulates a  
11         lot with or without medication, so we  
12         understand.

13                              Thank you.

14                              Have you ever been a party in  
15         litigation or arbitration?

16                  A.         Yes.

17                  Q.         How many times?

18                  A.         I think just once.

19                  Q.         When was that?

20                  A.         That would have been from  
21         about -- starting in about 1993 I was the --  
22         I can't remember exactly, next friend or  
23         something. My wife had taken out a sex  
24         discrimination suit against her employer, and  
25         so I was a next friend party along with our

1 son.

2 Q. Oh, so you had a -- did you  
3 have a consortium claim or something like  
4 that?

5 A. Yes, I think so.

6 Q. Okay. And do you know what  
7 court that was before?

8 A. I don't think we got any  
9 further than the Human Rights Commission in  
10 Massachusetts. I don't actually think we got  
11 to a court.

12 Q. Who was the employer?

13 A. Amherst College.

14 Q. Is your wife an academic also?

15 A. She's retired, but she was,  
16 yes.

17 Q. An economist?

18 A. Yes.

19 Q. And that was, as you say, in  
20 the early '90s?

21 A. Yeah. Started in about 1993,  
22 yeah.

23 Q. And have you ever testified --  
24 and sorry, let me strike that and reask.

25 Did you testify under oath in

1 that proceeding?

2 A. No, I did not.

3 Q. Do you recall if you submitted  
4 any statements or verified statements under  
5 oath in writing in that proceeding?

6 A. I don't recall specifically,  
7 but I don't think so.

8 Q. And when were you retained in  
9 this matter?

10 A. To the best of my recollection,  
11 last fall.

12 Q. Who retained you?

13 A. That's always a good question.  
14 So I was contacted through  
15 Cornerstone Research, and my retention  
16 letter, I believe, is with Covington.

17 Q. And which defendants are you  
18 working on behalf of?

19 A. I started out with just  
20 McKesson, and now it is McKesson and  
21 AmerisourceBergen.

22 Q. And how did it come to be that  
23 you also were working on behalf of  
24 AmerisourceBergen?

25 A. Mr. Dove told me one day I was

1 working on behalf of AmerisourceBergen.

2 Q. Okay. Have you interacted with  
3 lawyers for Amerisource?

4 A. No.

5 Q. Do you know who they are?

6 A. No.

7 Q. And is the Cornerstone work  
8 indivisible, meaning is all of the work that  
9 they did equally applicable to both of those  
10 defendants?

11 A. Yes, as in my report, I think  
12 that everything is applicable to both  
13 defendants.

14 Q. And would you say that your  
15 report -- well, actually, let me strike that  
16 question.

17 Had you worked with Covington  
18 in the past?

19 A. Yes. And I'm hemming and  
20 hawing a little bit because there were cases  
21 that were joint defense groups, and Covington  
22 was in the joint defense group.

23 Directly like this where  
24 they're the main attorneys I deal with, no, I  
25 don't believe so, but they've been in joint

1 defense groups that I've worked.

2 Q. In which matters that you  
3 recall was Covington part of the joint  
4 defense group?

5 A. The one that comes immediately  
6 to mind is Nexium and -- that's the only one  
7 I know for certain was Nexium.

8 Q. And what about the other  
9 attorneys on the phone and in this room, have  
10 you done work on behalf of clients that were  
11 represented by any of these law firms to your  
12 recollection?

13 A. Yeah, I have a hard time  
14 keeping law firms straight, so I -- the  
15 honest answer is I don't know, no.

16 Q. Have you done -- have you  
17 interacted with O'Melveny before?

18 A. Probably.

19 Q. What about Dechert?

20 A. Probably.

21 Q. Okay. What about Zuckerman  
22 Spaeder?

23 A. Sorry?

24 Q. Zuckerman Spaeder?

25 A. I don't believe so.

1 Q. And have you -- and can you  
2 remember on how many instances you have done  
3 work for any of those law firms? In other  
4 words, on behalf of any of the clients of  
5 those law firms?

6 A. No more than twice for those  
7 two. Probably only once.

8 Q. Are you counting this as one of  
9 them?

10 A. No.

11 Q. Okay? So --

12 A. So counting this would be  
13 twice.

14 Q. So Nexium is the first one?

15 A. Nexium is the first one with  
16 Covington. And I've done, again, a joint  
17 defense group, I believe Dechert has been  
18 involved and O'Melveny has been involved in  
19 joint defense group, but I can't tell you  
20 which cases or case.

21 Q. So it's more than twice that  
22 these firms have been in a joint defense  
23 group?

24 A. Okay. Let's clarify what we  
25 mean by "these firms." So I know once that

1 I've worked with Covington in a joint defense  
2 group and in this matter.

3 O'Melveny I believe was in one  
4 joint defense group that I worked with.

5 Q. Which case?

6 A. I couldn't tell you, but the  
7 name is familiar --

8 Q. An antitrust -- Oh, sorry.

9 A. Yes, it was a pharma case, that  
10 much I would know.

11 Q. Okay.

12 A. And the same with -- did I  
13 say O'Melveny -- same with Dechert, the name  
14 is familiar. I believe they were in a joint  
15 defense group, but I had not worked with them  
16 as directly as I work with Covington on this  
17 case.

18 Q. Have you done any work on  
19 behalf of McKesson prior to this case?

20 A. No.

21 Q. Have you done any work for  
22 Amerisource prior to this case?

23 A. No.

24 Q. Have you done any work for any  
25 of the distributor defendants in this case

1 prior to this case?

2 A. No.

3 Q. Have you done any work on  
4 behalf of a pharmacy prior to this case?

5 A. Pharmacy, no.

6 Q. Okay. And you have done  
7 substantial work for pharmaceutical  
8 manufacturers, correct?

9 A. Pharmaceutical manufacturers  
10 and pharmacy benefit managers.

11 Q. What is the scope of your  
12 representation in this matter?

13 A. I was asked to perform  
14 basically three tasks. I was asked to  
15 provide a primer, if you will, on the  
16 operation of the pharmaceutical market, how  
17 the flow of goods and payments and  
18 information flows throughout this market.

19 Secondly, I was asked to  
20 describe what kind of data was available to  
21 payers regarding opioid prescriptions and  
22 opioid consumption.

23 And third, I was asked to  
24 describe what sort of tools were available to  
25 payers in the -- what tools were available to

1        payers in order to modify consumer and  
2        physician behavior regarding opioid  
3        prescriptions.

4            Q.        And previous to this, had you  
5        ever done any work on behalf of payers as you  
6        define them in this report?

7            A.        On -- no.

8            Q.        Did counsel give you any  
9        assumptions on which you relied in preparing  
10      your report?

11          A.        No.

12          Q.        Are you aware that there's a  
13      trial set in this matter?

14          A.        I am.

15          Q.        Do you know when it is?

16          A.        The fall; September, October.

17          Q.        Are you planning to attend?

18          A.        I have not been asked to as of  
19      yet.

20          Q.        How did you prepare for this  
21      deposition?

22          A.        I reviewed my report, I  
23      reviewed much of the background material, and  
24      I met with counsel and with Cornerstone.

25          Q.        With whom at Cornerstone?

1                   A.         At Cornerstone it was Dr. Ofer  
2 Cohen.

3 Q. O-f-e-r, C-o-h-e-n?

4                   A.         Right.    Right.    Exactly as it  
5    sounds.

6 And Ms. Jennifer McCabe.

7 Q. Were they present at the  
8 meetings with lawyers?

9 A. Yes.

10 Q. Did you meet with them  
11 separately?

12                  A.        Meet, no. Talked on the phone  
13 with them separately, yes.

14 Q. Okay. Did you generate notes  
15 from those discussions?

16 A. No.

17 Q. How long did you spend  
18 preparing for this deposition?

19                   A.         Between independent work and  
20 meetings, it was probably between 15 and  
21 20 hours, I would think.

22 Q. And do you --

23                   A.         And part of that was just  
24       expanded, because, of course, as you know, we  
25       were supposed to do this a couple weeks ago,

1 and so in between there was additional  
2 preparation. So that's why it seems to be  
3 quite a lot.

4 Q. And you've mentioned that you  
5 met with counsel.

6 Do you mean the two individuals  
7 sitting next to you?

8 A. Yes, Mr. Dove and Ms. Han.

9 Q. Any other individuals?

10 A. No.

11 Q. In preparing your report, did  
12 you speak to any individual employees of  
13 McKesson or Amerisource?

14 A. No.

15 Q. Do you know if your team at  
16 Cornerstone conducted such interviews or had  
17 such conversations?

18 A. No, I don't believe so. They  
19 wouldn't have done that without me.

20 (Hughes Exhibit 2 marked for  
21 identification.)

22 QUESTIONS BY MS. GEMAN:

23 Q. So what is being marked as  
24 Exhibit 2 is the updated version of your  
25 curriculum vitae.

1 Do you recognize this document?

2 A. I do.

3 Q. When did you prepare it?

4                   A.         Within the last two weeks, put  
5     it that way.

6 Q. And is this the only CV you  
7 presently use?

8                   A.         Yes, this would be the CV I  
9 would presently use, correct.

10 Q. Sorry, go ahead.

11 A. That's fine. I'm done.

Q. Who prepared this?

13 A. I did.

14 Q. And do you have any other  
15 degrees other than those mentioned here?

16 A. No.

17 Q. And you mentioned that your  
18 thesis was the economics of medical  
19 malpractice reform?

20 A. That's correct.

21 Q. By "thesis," do you mean your  
22 dissertation?

23 A. Correct.

24 Q. And was the work on that funded  
25 by any pharma company?

1                   A.         No, the thesis -- the  
2 dissertation was not. There was follow-on  
3 research on medical malpractice reform that  
4 was funded by the Robert Wood Johnson  
5 Foundation, but that's it.

6                   Q.         And that is Johnson & Johnson?

7                   A.         They're ultimately funded by  
8 Johnson & Johnson, that's my understanding.

9                   Q.         Okay. And this reminds me of  
10 something I should have asked earlier, have  
11 you ever done any litigation or --  
12 litigation-related work on behalf of Johnson  
13 & Johnson?

14                  A.         Actually, yes. Okay.  
15 Somewhere on here there is a case that is the  
16 State of Texas versus -- why is it not -- oh,  
17 there it is. It's on the second page of  
18 Appendix B. I'm sorry, we haven't marked my  
19 report.

20                  Q.         That's okay. Just go ahead and  
21 tell me what the case is.

22                  A.         It was the State of Texas,  
23 Allen Jones v. Janssen LP, and I was under --  
24 I was told that Janssen was part of or at  
25 least at the time of the case was part of

1       Johnson & Johnson.

2           Q.       And what did that case involve?

3           A.       That was a -- basically a false  
4       claims case involving the drug Risperdal. In  
5       the state of Texas, it was the State of Texas  
6       Medicaid system.

7           Q.       Did the State of Texas  
8       interfere in that lawsuit?

9           A.       I'm not quite -- it's a legal  
10      thing. I'm not quite sure what you mean.

11          Q.       Was the case being prosecuted  
12      by lawyers from the State of Texas, or do you  
13      recall if it was private counsel for the  
14      relater, the whistleblower, who was  
15      prosecuting that case?

16          A.       I think it was a hybrid of  
17      that. I believe it was private counsel that  
18      had been appointed by the State of Texas.

19          Q.       Oh, I see.

20                   And did that case ultimately  
21      resolve?

22          A.       Yes, it was settled. I don't  
23      know. They never tell me.

24          Q.       Were you deposed in that case?

25          A.       Yes, I was.

1 Q. All right. And did it have to  
2 do with the safety or efficacy of Risperdal?

3 A. Not exactly. As I -- as I  
4 recall -- and this is quite a while ago now.  
5 As I recall, it had to do with claims that  
6 Janssen was making about Risperdal and the  
7 State of Texas was taking issue with the  
8 veracity of those claims, as I recall.

9 Q. And what was the scope of your  
10 work in that case?

11 A. Damages.

12 Q. Meaning if the allegations are  
13 true, how much did the state pay?

14 A. Actually, both. It was both  
15 merits and damages. So it was were the  
16 allegations, at least the economic  
17 allegations, true, and if so, what were the  
18 damages.

19 Q. Did you create a damage model  
20 in that case?

21 A. No. My task was to comment on  
22 the plaintiff's expert report, so I did not  
23 do an independent model.

24 Q. All right. Have you done --  
25 aside from the medical monitoring -- medical

1 monitoring -- I'm sorry, medical malpractice  
2 that we alluded to a minute ago, have you  
3 done research that has been funded by the  
4 pharmaceutical industry?

5 A. Yes. There is on Exhibit 2 at  
6 the bottom of page 4, there is a working  
7 paper called "Napsterizing Pharmaceuticals"  
8 that I did with Professor Moore and Dean  
9 Snyder, and we received funding for that  
10 from -- it's Aventis now. It was something  
11 previous to Aventis in those days. And I  
12 believe we received some funding from PhRMA,  
13 the trade association.

14 Q. Okay. Any other examples?

15 A. No, that's all.

16 Q. And you said the company was  
17 Actavis? Did I get that --

18 A. No. No, Aventis.

19 Q. Oh, Aventis.

20 Okay. And what is the PEPC?

21 A. I'm sorry, what are we  
22 referring --

23 Q. Are you familiar with an  
24 organization called the Pharmaceutical  
25 Economics and Policy Council?

1           A.       Oh, yes, I am. Yes.  
2           Q.       What is that?  
3           A.       That was -- I don't think it's  
4       still active. That was a group of economists  
5       that would meet and share some research  
6       findings during the annual meetings of the  
7       American Economic Association.

8           Q.       Were you a member?

9           A.       I guess. I mean -- I'm sorry,  
10      I didn't have a membership card or anything,  
11      but I was invited to such meetings.

12          Q.       All right. And do you know --  
13      do you know who created that organization?

14          A.       I believe it was Pfizer, yes.

15          Q.       Have you done any work for  
16      Pfizer?

17          A.       Yes. Again, at the bottom of  
18      page 2, there's a case Putney versus Pfizer,  
19      that was the -- that's the one that was most  
20      direct. And Pfizer has been involved in a  
21      number of other cases, but I can't -- I can't  
22      keep the manufacturers straight.

23                   So suffice it to say that I  
24      have worked for Pfizer more than once.

25          Q.       All right. And you

1       represented -- or you were working on behalf  
2       of Pfizer in those instances?

3                  A.       Yes.

4                  Q.       And for how many years were you  
5       a sort of de facto member of the PEPC?

6                  A.       I attended their meetings  
7       twice.

8                  Q.       And do you know, did the  
9       organization last longer than two years?

10                 A.       I think it did, but I kind of  
11       lost touch. Yeah, I -- basically I had -- I  
12       stopped going to the American Economic  
13       Association meetings. I didn't have any  
14       reason to go anymore.

15                 Q.       Can you tell me what you mean  
16       by that?

17                 A.       Well, if you're not -- if  
18       you're not presenting a paper and you're not  
19       hiring a new faculty member, it's during the  
20       holidays and so it's just kind of annoying to  
21       go and have a child and so it's like unless I  
22       had to go, I didn't go.

23                 Q.       I understand. We've all been  
24       there.

25                           All right. So what prompted

1       your interest in the medical malpractice  
2       arena?

3                     A.        My father-in-law. He was a  
4       cardiologist and he was -- so this would have  
5       been the early '80s and we were -- the  
6       country was in the midst of yet another  
7       medical malpractice crisis as it were, and  
8       there was -- there were a couple of things.

9                     First of all, my father-in-law  
10      and I would argue about the use of contingent  
11      fees by plaintiff's attorneys. And he was  
12      saying, "well, because they -- because they  
13      work for a share of the winnings, they file  
14      so many, so many, so many cases, and that  
15      shouldn't be allowed."

16                   And as an economist, it's like,  
17      well, wait, if you're -- when are you going  
18      to file more cases, when you're actually at  
19      risk of not receiving any return or when  
20      you're charging by the hour and you're going  
21      to get paid either way. And so that latter  
22      question motivated the theoretical part of  
23      the dissertation.

24                   And then I did a data analysis  
25      of various medical malpractice reforms that

1 had been tried in various states during the  
2 1970s.

3 Q. Thank you.

4 And you said that in the early  
5 '80s the country was in the midst of another  
6 medical malpractice crisis.

7 What is a "medical malpractice  
8 crisis"?

9 A. Yeah, I should -- I should say  
10 medical malpractice insurance crisis, is that  
11 physicians were finding their medical  
12 malpractice insurance rates to be increasing  
13 at alarming rates or what they found to be  
14 alarming rates, and some specialties,  
15 particularly things like obstetrics, were  
16 having -- some people were having trouble  
17 finding insurance at all.

18 Q. And you felt that in the early  
19 '80s was the second such crisis?

20 A. Yes, and I recall had two more  
21 since then.

22 Q. What were the subsequent two?

23 A. Early '90s and late '90s, but  
24 the early '80s one was the most severe  
25 because people just didn't know how to handle

1 it. There's been more involvement in terms  
2 of underwriting by state organizations that  
3 has lessened the blow.

4 Q. Have you ever provided expert  
5 work on behalf of a party in a medical  
6 malpractice case?

7 A. No.

8 Q. And did your research explore  
9 any, I guess you -- sort of principal agent  
10 issues or what you might consider problematic  
11 incentives for plaintiff's or defendant's  
12 counsel in medical malpractice cases?

13 A. Yeah. I mean, the first essay,  
14 that's exactly what it was -- exactly what it  
15 was about. And the nutshell version of the  
16 findings were for plaintiffs, the legal  
17 issues or something where they have to seek  
18 out expertise, plaintiffs don't know, they  
19 know they were injured, they don't know  
20 whether the doctor had done anything wrong,  
21 so they consult an expert.

22 But there's an information  
23 problem between the principal, the patient,  
24 and the agent, the doctor, in that the doctor  
25 knows something -- I'm sorry, the lawyer

1 knows something that the client doesn't know,  
2 and they both know that information is  
3 asymmetric.

4 So the use of contingent fees  
5 was a -- is a method of resolving that  
6 information issue by aligning the incentives  
7 of the contingent fee attorney with those of  
8 the client.

9 So do contingent fees cause  
10 more medical malpractice litigation? Yes,  
11 but not necessarily in a bad way, because  
12 transactions that otherwise -- mutually  
13 beneficial transactions that otherwise  
14 wouldn't be able to take place are now able  
15 to take place.

16 Q. And picking up on the perhaps  
17 dinner conversation with your father-in-law,  
18 did you find any evidence or support for the  
19 idea that the hourly paid defendant's counsel  
20 had any sort of complicated incentives or  
21 possibly misaligned incentives with clients?

22 A. No, I was actually focused  
23 solely on plaintiffs. I did not do anything  
24 on defense counsel.

25 Q. Did you find -- did you make

1 any findings or look into issues of delay?

2 A. Delay? No. No.

3 No, this was simply a matter of  
4 what in terms of plaintiff's compensation,  
5 what is going to increase or decrease the  
6 number of cases that would be beneficially  
7 filed.

8 Q. Okay. And you started teaching  
9 at Albany?

10 A. Yes.

11 Q. Correct?

12 And did you begin teaching  
13 before your Ph.D. was completed?

14 A. Yes, I taught a year as a  
15 teaching assistant in the economics program  
16 at the University of Michigan, and then I  
17 taught, again, as a TA, for two more years in  
18 the University of Michigan business school.

19 Q. Is that on your résumé here?

20 A. It's not, no.

21 Q. Okay. So I'm so sorry. Which  
22 years were you teaching at the University of  
23 Michigan business school?

24 A. '84-'85 -- no, '82-'83 and  
25 '84-'85. That would have been the business

1 school.

2 And then '81-'82 would have  
3 been the -- sorry. Yeah, '81-'82 was the  
4 economics department, had to be.

5 Q. So you were -- when you say  
6 "University of Michigan," you mean Ann Arbor?

7 A. Yes, I was in the Ph.D. program  
8 at that point.

9 Q. Oh, I see. So you were --

10 A. I was a graduate student.

11 Q. I see. Okay.

12 And you moved to Amherst in,  
13 what, the summer of 1987?

14 A. That's correct.

15 Q. And you lived there  
16 through 1992?

17 A. Yes.

18 Q. All right. I grew up in  
19 Amherst, and I was living there at that time.

20 A. Oh, wow.

21 Q. Did you ever interact with the  
22 math department at U Mass Amherst?

23 A. No. No, I did not.

24 Q. And what caused you to leave  
25 Amherst?

1           A.         You know, my wife and I were  
2         both on the faculty at Amherst, and she was  
3         ahead of me by a year in the tenure clock, if  
4         you will, and she was denied tenure in 19 --  
5         in January of 1992. And so we left for the  
6         fall of 1992, and that's the incident that  
7         generated the lawsuit that I was a plaintiff  
8         in.

9           Q.         I see. I see.

10          A.         She left Amherst and went to  
11         Colby College in Waterville, Maine, and I  
12         went to Bates College in Lewiston, Maine.  
13         They're about 50 miles apart.

14          Q.         So you solved the two-body  
15         problem?

16          A.         We did. We were very lucky.  
17         You know, we went from being from in the same  
18         department to being within 50 miles of one  
19         another, which is pretty lucky.

20          Q.         And what was the name of the --  
21         if you recall the name of the case that your  
22         wife brought? I guess it was a denial of  
23         tenure case.

24          A.         Yeah, I don't know  
25         specifically, but my guess is it would have

1       been Debra Barbezat, Debra is D-e-b-r-a, and  
2       Barbezat is B-a-r-b-e-z-a-t, versus Trustees  
3       of Amherst College is my best guess at the  
4       name.

5           Q.        Okay. The last Amherst  
6       question I'll ask you is did you ever go to  
7       the movies at the new mall?

8           A.        Yes.

9           Q.        All right. I may have sold you  
10      tickets.

11          A.        Oh, wow. Okay.

12          Q.        All right. And then, as you  
13      said, you moved to Bates.

14                  You got tenure at Bates?

15          A.        I did.

16          Q.        Which year?

17          A.        1997. Oh, no, let me take that  
18      back.

19                  It's a little complicated. I  
20      received tenure in 1995, and I received the  
21      title of associate professor of economics in  
22      1997 because of a weirdness in the -- in the  
23      faculty handbook at Bates at the time.

24          Q.        Okay. And you have recently  
25      retired?

1 A. Yep, May 24th.

2 Q. May 24th. Congratulations.

3 A. Thank you.

4 Q. Are you also retiring from  
5 consultant work?

6 A. No, not yet. Probably another  
7 year or two.

8 Q. And when was the -- when was  
9 the last time you were teaching at Bates?

10 A. There's -- at Bates we have a  
11 fall semester, a winter semester, and then in  
12 May we have something called short term. And  
13 professors teach one course, students take  
14 one course, and so that short term of 2019  
15 was my last class at Bates.

16 Q. Had you also taught that fall  
17 and that spring and that winter?

18 A. Yes.

19 Q. Okay. Do you have Ph.D.  
20 students?

21 A. No. Bates College is a  
22 undergraduate, liberal arts college.

23 Q. Okay. And when was the last  
24 time you taught a class denominated as health  
25 economics?

1           A.         Mid-'90s at Amherst College --

2         I'm sorry, mid-'90s at Bates College.

3           Q.         Okay. Do you think the field  
4         has changed a lot since then?

5           A.         No, actually, I don't believe  
6         it has.

7           Q.         And health economics is still  
8         taught at Bates, correct?

9           A.         Yes. My former colleague, Nate  
10         Tefft, T-e-f-f-t, teaches health economics.

11          Q.         Do you know if his class has  
12         any sort of section or module or case study  
13         on the opioid crisis?

14          A.         No, I don't know one way or the  
15         other. I never -- I never looked at his  
16         syllabus.

17          Q.         Okay. So other than the work  
18         at Albany, Amherst, Bates and Michigan, any  
19         other academic positions?

20          A.         I don't know how to classify  
21         it. I had a year in -- we'll call it 19 --  
22         well, wait, it's probably here somewhere. I  
23         was a post doc at Brandeis University.

24          Q.         Okay. So that was not a  
25         sabbatical; it was a post doc?

1                   A.         Correct, yes. That was  
2     1992-1993. It's listed as a nonacademic  
3     position on page 9, but it was research  
4     rather than teaching, which, I guess, is why  
5     I called it a nonacademic position.

6                   Q.         Have you followed the housing  
7     cost in the San Francisco area?

8                   A.         Actually, accidentally, yes, I  
9     have. Our son worked in the Bay area for  
10   several years living in an apartment that we  
11   found out belatedly had been foreclosed on.  
12   So actually we learned a lot about the  
13   housing in San Francisco that way.

14                  Q.         The so-called -- the ghost  
15   property market is complicated.

16                  A.         Yeah, very complicated.

17                  Q.         And during that position of  
18   which you've been speaking, you studied the  
19   effects of Medicaid expenditures on extending  
20   coverage for outpatient and residential drug  
21   treatment to pregnant drug users?

22                  A.         Correct.

23                  Q.         And what was the finding of  
24   your work?

25                  A.         Not terribly exciting, if

1 you -- if Medicaid increases expenditures,  
2 you get more outpatient residential drug  
3 treatment. That's a little trite.

7 Q. Did you speak with any of the  
8 subjects?

9 A. No.

10 Q. Were you aware of this  
11 litigation before you were retained in it?

12                   A.         Specifically, no. I was -- I  
13                   think it would be fair to say I was aware of  
14                   a growing opioid issue. It certainly was  
15                   something that was -- it's certainly a  
16                   problem that has hit my home state of Maine  
17                   quite hard.

18 Q. And have you done any work in  
19 this case for the sort of causes of why Maine  
20 has been so hard hit?

21 A. No, I have not.

22 Q. Do you have knowledge about the  
23 crisis' impact at Bates?

24                   A.         I'm sorry, could you repeat  
25       that?

1 Q. Sorry.

2 Do you have any knowledge of  
3 the extent or existence of the crisis' impact  
4 at Bates College?

5 A. Yes. I guess I would say yes,  
6 and the effect has been almost nonexistent  
7 among the students. It's had some effect on  
8 campus safety, but I serve on disciplinary  
9 committees and opioids have not come up in  
10 student discipline but yet. There has been  
11 more -- somewhat more larceny in the areas  
12 around campus.

13 Q. And are those students the  
14 victims or the perpetrators of that --

15 A. Victims.

16 Q. Victims. I see.

17 So are the perpetrators people  
18 in the community who are not associated with  
19 the university?

20 A. Correct.

21 Q. And have you had occasion in  
22 those hearings to interact with any  
23 individuals who are addicted to opioids?

24 A. No, because these incidents  
25 happened off campus. They're handled by the

1       Lewiston police. They're not -- they're  
2       generally not a college issue, per se.

3           Q.       I see.

4                   And we can just focus for a  
5       second on your nonacademic work.

6                   So we just talked a little bit  
7       about your work at Brandeis, correct?

8           A.       Yes.

9           Q.       So let's turn to page 10.

10                  In connection with your work --

11                  MR. DOVE: Counsel, just I  
12       think there's a slight -- there's --  
13       never mind. I've got an odd version  
14       with a blank page on it.

15                  MS. GEMAN: Oh, okay. Yeah,  
16       I'm just using the version you gave me  
17       this morning.

18                  Are you all set?

19                  MR. DOVE: Yes.

20                  MS. GEMAN: Okay. No worries.

21       QUESTIONS BY MS. GEMAN:

22           Q.       In connection with your work  
23       for the EPA, did you support limits on CFCs  
24       and asbestos?

25           A.       Yes. It really wasn't for me

1 to support, so I was overseeing the economic  
2 analyses of regulations that were being  
3 proposed by the Agency that would have --  
4 well, that did restrict chlorofluorocarbons  
5 and asbestos.

6 Your question made it sound  
7 like it was my decision, and it really  
8 wasn't.

9 Q. I understand.

10 I guess I could put more  
11 precisely, was it your opinion as an  
12 economist that the proposed regulations would  
13 be efficacious in limiting the use of CFCs in  
14 asbestos?

15 A. Yes, it was, and as life went  
16 on, because of technological changes,  
17 especially with chlorofluorocarbons, the  
18 transition away from chlorofluorocarbons was  
19 actually much, much cheaper than we had  
20 estimated in 1980.

21 Q. We should be so lucky with  
22 current threat.

23 And you then did some work for  
24 SRI International?

25 A. Correct.

1 Q. What is that?

2 A. SRI International used to be  
3 known as Stanford Research Institute. And so  
4 this was a -- this was basically a summer  
5 job, and in that the program -- the  
6 programming model was a linear program to  
7 help petroleum refineries, if they have a --  
8 if they have \$20 million to spend in reducing  
9 emissions, where in the refinery would be the  
10 most cost-effective ways -- cost-effective  
11 places to put that -- put that investment.

12 And that was that model.

13 And then the manual and  
14 information disclosure was basically you can  
15 regulate a market or you can enhance the  
16 information available to participants in the  
17 market and by doing so help them to modify  
18 their own behavior. And that was -- there  
19 were examples of that in this manual from  
20 1981.

21 Q. And are you generally a sort of  
22 proponent of regulation or of enhancing the  
23 information available to the participants in  
24 the market?

25 A. I think it depends on the -- it

1 depends on the situation. I mean, if we're  
2 talking plutonium, I'm all for regulation.  
3 You just don't -- there's some things you  
4 just don't want to mess with.

5 At the same time, and this is  
6 what we did with chlorofluorocarbons and  
7 marketable rights, I am -- I think it's fair  
8 to say I'm in favor of regulation if it is  
9 not possible to find a market solution to the  
10 problem.

11 So I think, you know, the idea  
12 of marketable rights and permits have really  
13 revolutionized pollution control. I think we  
14 get a lot more pollution control for a lot  
15 less money by solving these problems through  
16 the market as opposed to -- I mean, the way  
17 it -- the way it used to be done was, okay, a  
18 steel mill's polluting, you have to put on  
19 this technology. They spend several million  
20 dollars putting on this technology. Two  
21 years later, something new is invented and  
22 then they have to do that.

23 And the firms, you know, they  
24 balk at this. They say, we don't want to  
25 pollute, but we don't want to go out of

1 business either. And so by turning it from  
2 regulations into economic incentives, I  
3 think, has been incredibly successful.

4 Q. Can you think of examples  
5 involving pharmaceutical manufacturers where  
6 either regulations on the one hand or  
7 economic incentives on the other has  
8 addressed a problem in the market?

9 A. Well, sure. I mean, sort of  
10 everything in the -- in the last section of  
11 my report, I mean, prior authorizations, step  
12 edits, formulary placement, quantity limits,  
13 all of those things are economic incentives  
14 that don't tell people what to do, but they  
15 alter their incentives about what drugs  
16 should be -- what drugs are going to be  
17 prescribed and in what quantities.

18 Q. What about -- I guess I meant  
19 to be asking me about incentives that act  
20 directly on pharmaceutical manufacturers.

21 A. I can't think of any sitting  
22 right here today.

23 Q. What about on distributors?

24 A. Same, I can't think of any  
25 sitting here today.

1                   Q.         Okay. What about on  
2                   pharmacies?

3                   A.         Again, referring to my report,  
4                   like the organizations like the OARRS data in  
5                   Ohio that give pharmacies the ability to  
6                   check on a customer's opioid use and react to  
7                   that, if it's excessive, I take that as an  
8                   economic incentive, that they have -- they  
9                   have better information which makes the  
10                  market work better in keeping -- shall we  
11                  say, keeping tabs or preventing people with  
12                  opioid problems from obtaining further  
13                  opioids.

14                  Q.         And what information over the  
15                  past, say, ten years was available to  
16                  distributors to help them keep tabs or  
17                  prevent people with opioid problems from  
18                  obtaining further opioids?

19                  A.         There was the ARCos data that  
20                  allowed distributors to see -- to see whether  
21                  other distributors were selling to the same  
22                  entity, and that was modified a year later to  
23                  let the distributors see an anonymized  
24                  version of the quantities that were being  
25                  shipped.

1 Q. Did you -- have you ever worked  
2 with ARCOS data?

3 A. No, I have not.

4 Q. Did you know what it was before  
5 this case?

6 A. No, I didn't.

7 Q. Okay. Do you know of any other  
8 sources of information the distributors had  
9 to assist them in keeping tabs on opioid  
10 prescriptions and/or shipments?

11 A. Yeah, I wasn't actually asked  
12 to examine anything really regarding the  
13 information available to distributors. My  
14 assignment was limited strictly to payers.

15 Q. And do you -- separate from the  
16 fact that it is outside the scope of your  
17 opinions in this case, have you in the course  
18 of working on this case become aware of the  
19 sources of information available to  
20 distributors?

21 A. No.

22 Q. And when working on your  
23 report, did you look for contrary  
24 information?

25 A. I'm sure. I mean, the

1 assignment that I -- that I give to my staff  
2 at Cornerstone is to, you know, research a  
3 particular topic, and that is, research all  
4 of the information, what may be contrary,  
5 what may be supportive. In this case, given  
6 this -- or I'm sorry, not in this case, but  
7 given my assignment, there's not -- we didn't  
8 find any, nor did I expect that we would find  
9 anything that would say prior authorization  
10 is not effective in reducing prescriptions or  
11 additional information is not effective in --  
12 or reference to monitoring individual claims  
13 data by payers would not be effective in  
14 identifying doctor shoppers or pharmacy  
15 shoppers. I would be -- if I missed  
16 something, fine, but I would be stunned that  
17 there would be such contrary information.

18 Q. And what if there were entities  
19 that had far more easy access to information,  
20 would you consider that -- would you consider  
21 that contrary information or sort of off  
22 subject?

23 A. Entities outside of payers, I  
24 think would be outside the scope of my  
25 assignment.

1 Q. And going back to your  
2 non-economic positions, you state that you  
3 became a litigation consultant in 1990,  
4 correct?

5 A. Yes.

6 Q. And what got you started on  
7 this 30-year journey?

8 A. Yeah, I mean, 1990, there was  
9 a -- there was a discrimination case that my  
10 wife and I sort of jointly -- ironically my  
11 wife's research area was sex discrimination  
12 in academic labor markets.

13 Q. That is ironic.

14 A. It was very ironic.

15 And so we were like jointly  
16 retained to work for a plaintiff, and that  
17 was 1990. And that was a very brief  
18 engagement because we did a couple of damage  
19 scenarios and then we were told the case  
20 settled and that was -- that was sort of  
21 that.

22 Q. Had she -- oh, sorry, go ahead.

23 A. And the only thing I was going  
24 to say is then there's a gap until about 1995  
25 before I did any more litigation consulting.

1                   Q.         So did the -- was it somebody  
2                    that was denied tenure in --

3                   A.         No, it was -- if memory serves,  
4                    and it's a long time ago, I believe it was a  
5                    manager at a retail establishment -- it  
6                    wasn't Target, but it was something like  
7                    Target -- who had been dismissed and the  
8                    claim was age discrimination.

9                   Q.         Have you done other work in  
10                  connection with employment litigation?

11                  A.         Kind of. As favors to  
12                  colleagues, I've done -- I don't know if it's  
13                  universal, and hopefully I'll never find out,  
14                  but in divorce proceedings in Maine when  
15                  they're trying to allocate equitable  
16                  property, there -- if one of the spouses is  
17                  not employed, there's a step in which they're  
18                  supposed to with reference to their training  
19                  and experience determine what their earning  
20                  power may be on the market. And I was not  
21                  employed, but I was asked a couple of times  
22                  by colleagues to perform such an analysis,  
23                  and I did as a favor.

24                  Q.         And then what resparked your  
25                  interest in 1995 in doing litigation

1 consulting work?

2 A. Yeah, let me just make sure I  
3 have it. Yeah. So as it says in Exhibit 1  
4 in paragraph 2, I started as a consulting  
5 economist on the brand name prescription drug  
6 litigation in 1995. And my involvement in  
7 that was I had been -- when I was teaching at  
8 the University of Michigan business school,  
9 my supervisor was Professor Edward Snyder.  
10 He and I became coauthors and friends. He  
11 became -- by 1995 he became an associate dean  
12 at the University of Michigan. So he was  
13 retained as a testifying expert in the brand  
14 name prescription drug antitrust litigation,  
15 and there were several state cases involved,  
16 Maine being one of them, District of  
17 Columbia, Michigan and one other that's not  
18 going to come to mind.

19 And so he needed someone to  
20 serve as his staff and to do the kind of  
21 analysis that I now have Cornerstone do for  
22 me. And so I started as his consultant in  
23 that case, in the warfarin case and in the  
24 Cardizem CV case. And then by 1998, 1999,  
25 Dean Snyder was getting numerous engagements

1 and started referring some of them to me  
2 because he was too busy. And so then I  
3 started as a testifying expert around 2000.

4 MR. DOVE: Just so the record  
5 is clear, I think you referred to  
6 Exhibit 1, which I think you meant to  
7 say your report.

8 THE WITNESS: My report, which  
9 is not an exhibit yet, I'm sorry.

10 Never mind. Yes.

11 QUESTIONS BY MS. GEMAN:

12 Q. I understood what you meant.

13 A. Okay. Sorry.

14 Q. I think before we switch to the  
15 next exhibit, it's been close to an hour.

16 Do you want to take a quick  
17 break or keep going?

18 A. Sure, we can take a break.

19 VIDEOGRAPHER: Going off the  
20 record. The time is 10:32.

21 (Off the record at 10:32 a.m.)

22 VIDEOGRAPHER: We're going back  
23 on the record. Beginning of Media  
24 File Number 2. The time is 10:45.

25 (Hughes Exhibit 3 marked for

1 identification.)

2 QUESTIONS BY MS. GEMAN:

3 Q. So, Professor Hughes, before we  
4 turn to what's been marked as Exhibit 3, I  
5 would just request that as there are further  
6 updates -- if there are further updates to  
7 your CV that we be provided with them.

8 Is that acceptable?

9 A. Certainly.

10 Q. Okay. And actually, while  
11 we're on Exhibit 2, can you please turn to  
12 the section entitled "Articles in Refereed  
13 Journals"?

14 A. Yes.

15 Q. Do any of these articles  
16 involve the marketing of pharmaceuticals?

17 A. No. My published academic work  
18 has not involved pharmaceuticals, but over  
19 the course of this 25-year journey in  
20 consulting, there have been dozens of reports  
21 that I've written, and I think that the vast  
22 majority of them would have resulted in  
23 peer-reviewed, published articles except that  
24 they were under protective order so I wasn't  
25 allowed to submit them.

1                           So these are only the articles  
2   that were, shall we say, allowed to be  
3   published.

4 Q. And why is it your view that  
5 they would -- that the expert reports  
6 submitted on behalf of defendants in  
7 litigation could be turned into  
8 peer-reviewed, published articles?

9                   A.         Oh, for one thing you have  
10          access to data from the defendants and  
11          sometimes from named plaintiffs that you just  
12          don't really get access to as an academic  
13          economist. And so by using those data, we  
14          would be able to look at behavior, for  
15          example, a lot of the cases that I work on  
16          involve generic entry, what actually happens  
17          in different therapeutic groups when there is  
18          generic entry of a certain type, at a certain  
19          time, in a certain number using the actual  
20          manufacturer's data.

That seems to me that articles somewhat like that have been published, and I don't see any reason why the things that I wrote under protective orders would not also find a peer-reviewed outlet.

1                   Q.         Do you see any differences  
2         between work on behalf of a pharmaceutical  
3         defendant that is being sued for allegedly  
4         keeping generics out of a market and work for  
5         a -- or work on an academic article that is  
6         not prepared outside the context of  
7         litigation?

8                   A.         Well, I mean, it depends.  
9         There can be differences, and there can --  
10        there cannot be differences in the sense that  
11        both may try to be prospective in terms of  
12        what are -- what would be the outcome if  
13        certain -- what would be the outcome under  
14        certain conditions of generic entry in terms  
15        of numerosity, in terms of the -- in terms of  
16        numerosity, in terms of the therapeutic group  
17        you're in, in terms of a lot of other market  
18        factors.

19                  Again, you know, applied  
20        microeconomists, we look at markets and what  
21        happens to them. So generic entry is a shock  
22        to a particular market and applied micro  
23        people find it interesting to see what  
24        happens under different circumstances.

25                  So, I mean, to answer your

1 question, a lot of the articles that are out  
2 there are, shall we say, aggregates, so they  
3 look at across a large number of drugs. It  
4 would be illustrative from an academic  
5 standpoint to look at what happens with  
6 particular drugs with particular number of  
7 entrants in particular therapeutic groups,  
8 and that is not really in the literature at  
9 the moment that I'm aware of.

10 Q. Is it your testimony that your  
11 work on behalf of the pharmaceutical industry  
12 is a form of research?

13 A. Oh, absolutely.

14 What are you doing? You're --  
15 in the research that I have published here is  
16 you're looking at a market, what happens when  
17 there's a change in this market. So I did a  
18 number of papers on the English rule for  
19 compensating attorneys during litigation and  
20 what happens under the English and American  
21 rules, and we have data on that. So that's a  
22 market. And for legal services, it's  
23 compensated -- this work is compensated in  
24 one way under one set of rules and another  
25 way under another set of rules. What

1 changes?

2 All right. So by the same  
3 token you're doing the same thing in the  
4 consulting research, here's what happened  
5 with generic entry or here's hypothesized  
6 what would have happened had generic entry  
7 happened sooner, or what would have happened  
8 if generic entry had happened in larger  
9 numbers. Again, it's a shock to a market,  
10 what was the result.

11 You go through the same  
12 procedure, basically, whether it's for the  
13 legal services market or it's for the  
14 pharmaceuticals market.

15 Q. Have you ever declined to work  
16 on a piece of pharmaceutical litigation on  
17 behalf of a defendant for reasons other than  
18 scheduling conflicts, press of business or  
19 conflict?

20 A. Yes.

21 Q. Okay. Under what  
22 circumstances?

23 A. I didn't think that as an  
24 economist I had anything to honestly say that  
25 would help them.

1 Q. And was that a function of the  
2 merits of the case or just your fields within  
3 economics not being a fit with this field of  
4 economics that that case arguably called for?

5 A. Yeah, I mean, I actually think  
6 it was the merits of the case.

7 Q. And have you ever turned down  
8 plaintiff side work?

9 A. I've never been approached for  
10 plaintiff side of work.

11 Q. Have you ever been sought to do  
12 plaintiff side work?

13 A. No. I have actually never  
14 really sought any kind of work. It's just  
15 what comes to me is what comes to me.

16 Q. But you have a relationship  
17 with Cornerstone, right?

18 A. Well, I have a relationship  
19 with Cornerstone, but prior to that, it was,  
20 you know, very much word of mouth amongst  
21 attorneys, you know.

22 Q. Amongst attorneys for defense  
23 side?

24 A. Sure.

25 Q. Pharma companies?

1                   A.         Sure, but it could have been  
2         amongst attorneys for plaintiff side. Well,  
3         okay, hang on. Let me take that back.

4                   A long, long time ago, let's  
5         call it 1995, I was retained by -- briefly by  
6         Heins, Mills and somebody in --

7                   Q.         Olson?

8                   A.         Yeah, Heins, Mills & Olson. It  
9         was -- I believe it's on here.

10                  Q.         You represented a plaintiff  
11         medical doctor; is that right?

12                  A.         No. It was airline  
13         transportation. It was the so-called travel  
14         agency case.

15                  Q.         And you represented plaintiffs?

16                  A.         And I represented plaintiffs,  
17         but I was not -- I did not testify. It  
18         was -- it was very brief. I did some  
19         document review and did some discussions with  
20         attorneys, and then they ended up hiring a  
21         different person for -- to actually do the  
22         testifying. So I was approached by  
23         plaintiffs in that case, and I did take the  
24         retention, but it didn't last very long.

25                  Q.         And is that case that you just

1 mentioned located, moving for a second, to  
2 Exhibit 3?

3 A. No, it wouldn't be because I  
4 wasn't testifying.

5 Q. I see.

6 A. Yeah.

7 Q. So going back to your refereed  
8 papers, is that a synonym for peer-reviewed?

9 A. Yes, all of these would have  
10 been peer reviewed.

11 Q. Okay. Have you written any  
12 papers on the supply chain of  
13 pharmaceuticals?

14 A. No, I have not.

15 Q. Have you written any papers  
16 about opioids?

17 A. Yeah, let me be more precise.  
18 I have not written any peer-reviewed articles  
19 on the pharmaceutical supply chain, but I  
20 have written several sections of several  
21 reports on that supply chain.

22 Again, for opioids, I have  
23 written the report that we're talking about  
24 today, but I have not written any  
25 peer-reviewed articles on that.

1 Q. Have you written any  
2 peer-reviewed articles that required the  
3 study of the role or functions of  
4 distributors in any capacity?

5 A. Yes, in the -- again, in the  
6 course of my work for the PBM Medco, there  
7 was discussion of the role of distributors,  
8 but, no, I've not -- I've not submitted any  
9 of those -- I did not submit that work for  
10 publication in a peer-reviewed journal.

11 Q. Have you published any  
12 peer-reviewed articles that requires the  
13 study or of the goal or function of  
14 distributors in any capacity?

15 A. Not in a peer-reviewed journal,  
16 no.

17 I have written such reports,  
18 but I have not been allowed to submit them  
19 to -- for peer review.

20 Q. Have you written such reports  
21 outside the context of litigation?

22 A. Okay. Let's just back up a  
23 second.

24 Could you define such reports?  
25 Q. Yeah.

1                   Have you ever written about any  
2 aspect of the distributor industry in any  
3 context outside of litigation?

4                   A.         No.

5                   Q.         Okay. Have you published -- or  
6 which peer-reviewed articles, if any, would  
7 you consider to relate to the market for  
8 prescription drugs?

9                   A.         Again, I've written several  
10 reports in the course of my consulting work  
11 that I do believe would be eligible for  
12 publication in peer-reviewed journal, but I  
13 wasn't allowed to submit them. But on the  
14 list before us today in Exhibit 2, I have  
15 not -- there are no papers like that in  
16 peer-reviewed journals.

17                  Q.         So you have not published  
18 peer-reviewed articles that relate to the  
19 market for prescription drugs?

20                  A.         There's none on this list, no,  
21 but I have certainly written such reports.

22                  Q.         Are you saying that you have  
23 peer-reviewed articles that have been  
24 published that are not on this list?

25                  A.         No. I'm saying that I've

1       written reports on that topic, but they  
2       have -- I have not been allowed to submit  
3       them for peer-reviewed publication.

4           Q.       On whose behalf have you  
5       written reports on the topic of the market  
6       for prescription drugs?

7           A.       Gosh, almost everybody.

8                   I would say on Exhibit 3,  
9       almost every report that is on there dealing  
10      with pharmaceuticals, almost every one would  
11      have included a section on the distribution  
12      and payment flows for prescription  
13      pharmaceuticals.

14           Q.       So let's turn sort of formally  
15      to Exhibit 3.

16           A.       Okay.

17           Q.       This is current, correct?

18           A.       It is.

19           Q.       All right. And you were  
20      deposed in the Restasis matter quite  
21      recently?

22           A.       A week ago Friday.

23           Q.       Do you recall the name of the  
24      lawyer deposing you?

25           A.       Yes, ironically she's from

1 Heins, Mills & Olson. Renee -- Renee. I may  
2 come up with her last name.

3 Q. And you submitted a report on  
4 behalf of defendant in that case?

5 A. Correct.

6 Q. Okay. If you look at all the  
7 litigations listed on the first page, did you  
8 submit reports on behalf of the plaintiffs in  
9 any of these cases?

10 A. On the first page, no.

11 Q. Okay. And was the second  
12 page -- well, let's just ask the same  
13 question about the second page.

14 Of the litigations listed on  
15 pages 2 and 3, which, if any, were ones in  
16 which you submitted a report on behalf of  
17 plaintiffs?

18 A. On page 3, there is -- at the  
19 very top, there's Putney versus Pfizer,  
20 Putney versus Pfizer and MWI Veterinary  
21 Supply. I was retained by Pfizer, who was  
22 the plaintiff in the matter.

23 Q. Pfizer was the plaintiff in the  
24 matter, Putney, Inc., versus Pfizer?

25 A. Well, I -- yes, I believe there

1        were cross-complaints.

2            Q.        I see.

3                      So Pfizer was sued and then it  
4        brought claims, cross-claims, against Putney?

5            A.        Other way around; Pfizer sued  
6        and Putney brought a cross-claim against  
7        Pfizer.

8            Q.        I see.

9                      And were you representing  
10      Pfizer in both of those matters? Were they  
11      consolidated?

12            A.        I believe they were  
13      consolidated. There was one report and one  
14      deposition.

15            Q.        What was the subject of that  
16      lawsuit?

17            A.        So veterinarians can prescribe  
18      for their patients any pharmaceutical that's  
19      approved by the FDA for human use. Companies  
20      can go beyond that and do the clinical trials  
21      so that they get FDA approval specifically  
22      for veterinary use.

23                      Pfizer had done this with one  
24      of their products, and I'm not going to  
25      remember which one it was, but they had a

1 product that was approved for human use and  
2 it was also FDA approved for veterinary use  
3 in dogs and cats. Putney is a company  
4 actually in Maine, and what they do is they  
5 buy FDA-for-humans-approved generic drugs,  
6 bottle them and sell them to veterinarians.

7 Putney was advertising this  
8 particular generic drug. The drug that  
9 Pfizer had veterinary approval for, Putney  
10 was advertising that drug as being FDA  
11 approved, which was technically correct. It  
12 was FDA approved for human use, but it was  
13 not FDA approved for Pfizer -- not Pfizer,  
14 for veterinary use.

15 So Pfizer sued to have them  
16 stop that advertising because it was --  
17 Pfizer considered it to be misleading, and  
18 Putney countersued and said, no, it's not in  
19 effect. And there were competing experts and  
20 there were depositions and then the case  
21 settled, and I know in this case the case  
22 settled with Putney agreeing to stop that  
23 kind of advertising.

24 Q. Did you opine that the ads were  
25 misleading?

1           A.       No, actually what I -- all that  
2       I was doing was calculating damages.

3           Q.       Meaning assuming that the ads  
4       were found misleading, what damages --

5           A.       Yes.

6           Q.       -- were to follow?

7           A.       Right.

8           Q.       And did you create a damage  
9       model for purposes of calculating damages?

10          A.       I think it would be a big  
11       compliment to that work to call it a model.  
12       There was basically a calculation of what  
13       sales Pfizer lost and then multiplied by the  
14       revenues that they would have gotten.

15                   So, yes, technically a model,  
16       but it was not -- certainly not an intricate  
17       one at all.

18          Q.       Was it a Lanham Act case?

19          A.       Couldn't tell you.

20          Q.       Okay. So did you -- how did  
21       you go about determining which sales Pfizer  
22       lost?

23                   For example, did you assume  
24       that any sale that Putney got was one that  
25       Pfizer had lost, or did you make a more

1 complicated assessment?

2           A.       I did something I thought -- to  
3 my recollection, I did something that I  
4 thought was actually quite honest, which was  
5 I didn't really know exactly how many sales  
6 Pfizer would have lost, and so I believe I  
7 did three scenarios. I did a sensitivity  
8 analysis and just gave the range of the  
9 potential losses and left it at that.

10          Q.       So what were the inputs to the  
11 three scenarios?

12          A.       Oh, I -- wow, I don't remember.

13          Q.       Do you remember anything about  
14 the --

15          A.       I'm actually lucky I remember  
16 the three scenarios.

17          Q.       You mean that there were three?

18          A.       That there were three. And I'm  
19 not going to be to specifically -- a lot of  
20 time in deposition was spent because the  
21 defense expert had made a really egregious  
22 mistake, and I can't remember what it was,  
23 but it would be classified as a really stupid  
24 mistake, and, you know, I pointed it out,  
25 corrected it and whatnot. And then we spent

1       a lot of time in deposition with kind of  
2       like, well, everybody makes mistakes, don't  
3       they, and like, yes. I mean, so it kind of  
4       went like that, but I don't remember exactly  
5       how I came up with the -- with the three  
6       scenarios.

7                   I don't think it was anything  
8       terribly complicated because this was not a  
9       huge matter for Pfizer, so I probably had  
10      worst-case, middle-case, best-case.

11      Worst-case probably was every sale Putney  
12      made was one that was lost by Pfizer, would  
13      have been an overestimate; and then the other  
14      two were determined somehow, but I don't  
15      remember how.

16           Q.       Did you have an opinion as to  
17       which was the most fair or reasonable case  
18       scenario?

19           A.       I don't recall, although -- I  
20      don't recall, although I seem to remember  
21      that I said that the -- every sale Putney  
22      made was a lost sale to Pfizer, that it was  
23      my opinion that that was truly a worst-case  
24      scenario but yet highly unlikely.

25           Q.       You said it was an

1 overestimate?

2 A. Yeah, it was highly unlikely.

3 And so in being highly unlikely, there -- I  
4 didn't believe it possible that every Putney  
5 sale was a sale lost by Pfizer because -- for  
6 one thing because the price differential.

7 Q. And what was the -- do you  
8 recall what distinguished the conservative  
9 from the median scenarios?

10 A. No, I really don't.

11 Q. And was there one between  
12 conservative and median that you advocated?

13 A. No. I remember in -- I  
14 remember in deposition saying that it was --  
15 that I thought it was, you know, very much up  
16 to a jury or a judge to determine which one  
17 of these would be the most likely that I  
18 actually didn't have an opinion. And again,  
19 in deposition almost all the time was spent  
20 talking about the defense expert's report.  
21 Very little time was spent talking about my  
22 report.

23 Q. But you considered it  
24 reasonable to say, I don't have to come up  
25 with an exact number, right, because I'm not

1       the judge, jury, executioner; I am simply the  
2       expert economist, correct?

3           A.       Yes. And it's possible -- I  
4       don't remember. I think it's possible that I  
5       was instructed by counsel for Pfizer to just  
6       say -- just come up with three scenarios from  
7       best to worst and, you know, we'll deal with  
8       it otherwise. And so I believe that was not  
9       my idea. I believe I was following counsel  
10      instructions.

11          Q.       And do you recall if Pfizer  
12       recovered any money in that litigation? If  
13       you can disclose it. I don't, you know --

14          A.       Well, number one, I don't know  
15       whether they did. I believe, as it was put  
16       to me, is that -- by counsel for Pfizer I --  
17       it was put to me, like this was a big waste  
18       of time because Putney ultimately agreed to  
19       do what we asked them to do before anybody  
20       sued anybody. So Putney -- so my  
21       interpretation is that Putney stopped the  
22       advertising and that was that, but they may  
23       have gotten money. I wasn't told one way or  
24       the other.

25          Q.       All right. So other than the

1 Pfizer engagement that we have been speaking  
2 of, are there any other matters listed on  
3 pages 2 and 3 of Hughes Exhibit 3 in which  
4 you worked for a plaintiff?

5 A. Yeah. On pages 2 and 3, no. I  
6 had a -- in addition to the travel agent  
7 case, I did have a retention for plaintiff in  
8 a case that was dropped, so it's not on here  
9 because I never actually testified to it.  
10 And it was -- involved the school instrument  
11 rental market in southeastern Michigan.

12 Q. So that the travel airlines  
13 case was not one in which you were retained,  
14 correct?

15 A. I was retained and I was paid  
16 for the few hours that I worked. It was  
17 probably like 20 hours or so that I worked.

18 Q. As a consultant?

19 A. As a consultant, yeah.

20 Q. I see.

21 And the --

22 A. I believe I was being  
23 considered as a testifying expert, but I  
24 wasn't retained as such, no.

25 Q. Did you suggest damage models

1 or damage calculation mechanisms in that  
2 case?

3 A. Yeah, I didn't get that far  
4 because I was -- my recollection is that time  
5 was spent gleaning what I could from two  
6 banker's boxes of documents, and that was --  
7 that's what I remember. And so I believe I  
8 gave orally, you know, an opinion about what  
9 this was and what the possible uses were, but  
10 that was as far as it went.

11 Q. In either of this consultancy  
12 that we've just been speaking of or the  
13 Putney case, did you do any regression  
14 analyses in connection with your work?

15 A. In which case? In any case?

16 Q. Sorry, no. No. No. I'll  
17 break it down. I asked about two things, but  
18 we'll just go one by one.

19 In your work for Pfizer in the  
20 Putney matter, did you conduct any regression  
21 analyses?

22 A. No.

23 Q. And so the sensitivity analyses  
24 to which you referred in the Putney matter,  
25 can you describe what those were?

1                   A.         Like I said, it was very  
2         simple. So there was a hypothesized call it  
3         but for number for sales, and price, I  
4         believe, we held constant. And so it was  
5         simply the change in sales times the -- times  
6         the wholesale price was the damages. This  
7         was -- if I recall correctly, I think my  
8         report was like 15 pages. It was really  
9         short.

10                  Q.         And as an expert, you felt it  
11         was reasonable to hold price constant in that  
12         analysis, correct?

13                  A.         Yes, because, if I recall  
14         correctly, Pfizer hadn't changed the price in  
15         the two or three years since they'd had FDA  
16         approval. There was a reason for it. It  
17         wasn't just me picking it.

18                  Q.         Otherwise, you would have  
19         picked a but for price?

20                  A.         I don't know. Probably.

21                  Q.         And in the work for the -- I'm  
22         sorry, the airline price -- the travel --

23                  A.         Travel agency.

24                  Q.         Travel agency, did you do any  
25         statistical analysis?

1                   A.           No.

2                   Q.           And in the school instrument  
3                   case in southeast Michigan, can you describe  
4                   your -- well, for that case, can you describe  
5                   the work you did?

6                   A.           Yeah. So I was retained by the  
7                   plaintiffs. It was a company called Meridian  
8                   Winds, and they were in the business of  
9                   renting band instruments to students and to  
10                  schools. And they had -- they were up  
11                  against a much larger competitor and their --  
12                  when I was retained, their allegation was --  
13                  basically their larger competitor was pricing  
14                  substantially below what Meridian Winds was  
15                  charging. And so I looked at what  
16                  information had been made available, there  
17                  had been a little bit of discovery. But kind  
18                  of the end of it was my talking with the  
19                  management at Meridian Winds and it's like,  
20                  well, could you match these prices that your  
21                  competitor is charging? And they said, yes,  
22                  but it wouldn't be profitable. And then I  
23                  asked, but would it be above your cost of  
24                  production, if you will. And they said, yes.  
25                  And then I said, as an economist, you really

1 don't have any grounds here. And so then it  
2 was dropped.

3 Q. Meaning you felt they didn't  
4 have grounds to say that the pricing by the  
5 defendant violated the antitrust laws simply  
6 by being low?

7 A. Right. So I said basically  
8 that it was my opinion that if you went into  
9 court against a defendant who was pricing  
10 above their cost of production, that you  
11 weren't going to get very far and it would be  
12 a waste of -- it would be a waste of time  
13 spent on me, certainly. And so they decided  
14 to drop it.

15 Q. So that's helpful. Thank you.  
16 So do you have any testifying  
17 engagements that are not listed on this  
18 Exhibit 3?

19 A. Yes.

20 Q. Okay. Is that because you have  
21 not yet submitted a report?

22 A. In one I have submitted a  
23 report but I haven't been disclosed, if you  
24 will. I've not been deposed. So it's  
25 probably -- I mean, it's probably okay to say

1 who that is.

2                   But then there's one, two --  
3 anyway, other than what's on this list --  
4 other than this case and what's on this list,  
5 I have three other active cases.

6                   Q.       It doesn't sound like you're  
7 close to retirement.

8                   A.       Yeah, it --

9                   Q.       So talking about the first  
10 thing you mentioned and you said it was  
11 probably okay.

12                  Can you tell me about --

13                  MR. DOVE: Let me stop you for  
14 a minute because I want to make sure  
15 that you don't disclose anything  
16 that's subject to a confidentiality  
17 agreement or any sort of  
18 communications with your counsel with  
19 regard to that matter. I mean, if  
20 it's -- if it's confidential --

21                  THE WITNESS: The other side  
22 knows who I am, and I will ultimately  
23 be deposed, so it's not really a  
24 secret.

25                  So this is a case that's, in

1                   effect, a follow-on to the modafinil  
2                   case, and it's UnitedHealthcare is  
3                   seeking damages regarding modafinil.  
4                   And I have written a report commenting  
5                   on their expert's damage calculations.

6        QUESTIONS BY MS. GEMAN:

7                   Q.           So UHC is the plaintiff and  
8                   Teva is the defendant?

9                   A.           It's a joint defense group.  
10                  Teva and -- I know Mylan settled. Actually,  
11                  Mylan may still be -- I don't know.

12                  Q.           But Teva is -- or rather on  
13                  whose behalf are you working?

14                  A.           Teva, I believe.

15                  Q.           All right. And is another name  
16                  for modafinil Provigil?

17                  A.           Yes.

18                  Q.           It's a wakefulness drug?

19                  A.           Beg your pardon.

20                  Q.           It's a wakefulness drug?

21                  A.           Yes, correct.

22                  Q.           And does that case also involve  
23                  armodafinil?

24                  A.           No. It's just an allegation of  
25                  overpaying for Provigil.

1 Q. Due to keeping generics out of  
2 the market?

3 A. I'm sorry --

4 Q. I'm sorry.

5 A. -- I'm having trouble hearing  
6 you.

7 Q. I'm so sorry.

8 Due to keeping generics out of  
9 the market?

10 A. Yes. Compared to earlier  
11 generic entry, yes, uh-huh.

12 Q. All right. And that is an  
13 antitrust case?

14 A. Yes, I suppose so. I don't --  
15 I get hired to do damages. What exactly what  
16 law it's under is not always relevant to what  
17 I do.

18 Q. Have you created a damage model  
19 in that case?

20 A. No, I wasn't asked to do that.  
21 There UHC presented an expert report and I  
22 was asked to evaluate the reliability and  
23 accuracy of those calculations, but I was not  
24 asked to do a damages model of my own  
25 construction.

1 Q. Did you do any evaluation of  
2 any of the plaintiffs' expert reports in this  
3 opioids matter?

4 A. No.

5 Q. Have you reviewed any of the  
6 plaintiffs' experts' reports?

7 A. In this matter, no.

8 Q. Okay. Do you intend to?

9 A. I haven't been asked to. I  
10 will if I'm asked to.

11 Q. Okay. So you mentioned you're  
12 working on three other matters in addition to  
13 this opioids matter, and one of them involves  
14 modafinil.

15 A. Correct.

16 Q. Are the other two matters ones  
17 in which you've been retained by counsel for  
18 the defendants?

19 A. Yes.

20 Q. Are they class actions?

21 A. Yes.

22 Q. Are they antitrust matters, if  
23 you know?

24 A. Yes, I believe they are.

25 Q. Okay. And are the defendants

1 pharmaceutical companies?

2 A. Yes, they are.

3 Q. Can you tell me who they are?

4 MR. DOVE: Again, cautioning  
5 you on the confidentiality concern.

6 THE WITNESS: Yeah, actually, I  
7 can't.

8 QUESTIONS BY MS. GEMAN:

9 Q. Okay. Can you tell me who the  
10 lawyers are?

11 A. Like I say, law firms to me,  
12 I'm sorry, are all Gilbert and Sullivan. I  
13 can't keep them straight.

14 I know the one; it's just not  
15 coming to me. If I think of it, I'll tell  
16 you.

17 Q. Do you know -- sorry.

18 Do you know if it's one of the  
19 firms representing one of the defendants in  
20 this opioids matter?

21 A. I don't specifically know.

22 Q. Okay. Have you ever testified  
23 before Congress?

24 A. No.

25 Q. Have you ever testified before

1 any government agency?

2 A. No, I have not.

3 Q. So not the FDA or CDC or DEA?

4 A. No.

5 I -- this doesn't count, but I  
6 was scheduled to testify before Congress, but  
7 I was scheduled to testify before Congress on  
8 the English rule, which Dean Snyder and I had  
9 done a lot of research on, but our testimony,  
10 if I recall, was scheduled for September 13,  
11 2001.

12 Q. Oh.

13 A. So that was that.

14 Q. Were those hearings reconvened  
15 at any point?

16 A. Not with us, no.

17 Q. Okay. And do you know if those  
18 hearings resulted in any litigation -- I'm  
19 sorry, legislation being passed?

20 A. I'm positive that it did not,  
21 but I don't know specifically because I would  
22 know if something had changed.

23 Q. Okay. Do you have a list of  
24 organizations, even a partial, for which  
25 you've done consulting work?

1                   A.         Organizations, do you mean  
2         firms, law firms, manufacturers?

3                   Q.         No, no, the underlying  
4         entities.

5                   So, for example, in this case,  
6         McKesson, here you're testifying?

7                   A.         Right. Do I have a list? No,  
8         I don't.

9                   Q.         About how many -- about how  
10       many different pharmaceutical companies have  
11       you done consulting work for?

12                  A.         Counting joint defense groups,  
13       it would probably be between 10 and 15.

14                  Q.         And how would you -- if you  
15       were to take your work from 19 -- really,  
16       1995 to the present, of your litigation work,  
17       how would you divide the time between  
18       consulting -- let me ask that again.

19                   Consulting and serving as a  
20       testifying expert?

21                  A.         Gosh, after 2000, everything  
22       I've done has been as a testifying expert.

23                  Q.         Okay. That's helpful.

24                   So you sort of started out  
25       working, like you said before, with Professor

1       Snyder?

2           A.       Right.

3           Q.       Did you do consulting work --  
4       was all of the consulting work you did in  
5       connection with matters for which Professor  
6       Snyder was testifying or slated to testify?

7           A.       Yes, he was the testifying  
8       expert, and I did the data analysis or other  
9       research to help him construct his report.

10          Q.       And you stated that your expert  
11       reports were accepted in 30 cases?

12          A.       Yes.

13          Q.       Now, you understand that's not  
14       the same as those cases won, correct?

15          A.       Correct. It means my testimony  
16       has never been excluded.

17          Q.       Right.

18                   And it hasn't been the case in  
19       all of those that the Court has expressly  
20       ruled on your testimony. In some instances  
21       it wasn't challenged; in some instances the  
22       issue may have been mooted by a settlement,  
23       correct?

24          A.       Yes, although I guess I would  
25       disagree. I think my testimony has always

1       been challenged, but, yes, in a number of  
2       these cases settlements mooted any ruling on  
3       my -- on the, say, class certification that I  
4       was testifying on, yeah.

5           Q.       And when you say "your  
6       testimony has always been challenged," do you  
7       mean that in each of the 30 cases a Daubert  
8       or Frye motion was filed?

9           A.       Ah, okay. We have a different  
10      understanding of "challenge." No, there was  
11      always an opposing expert is what I meant.

12          Q.       Oh, yeah.

13          A.       Sorry.

14          Q.       No, that's fine.

15                 But I guess just to ask my  
16      question more precisely, and I appreciate  
17      that clarification, do you know how many  
18      cases of the 30 was a formal motion  
19      challenging you as an expert, either your  
20      qualifications or your methods or their  
21      relationship to the subject matter of the  
22      case, in how many cases did that sort of  
23      formal challenge occur?

24          A.       I don't know the total, but  
25      I -- sitting here today, I know of three

1       where it has been, and I would imagine there  
2       have been more. Surprisingly to me, I'm  
3       rarely told if there's a Daubert motion filed  
4       against me. I don't know why I'm rarely  
5       told, but I am.

6           Q.       And do you know of your -- of  
7       the 30 cases in which you've been a  
8       testifying expert, in how many of those would  
9       you say the defendant prevailed?

10          A.       Oh, in the early -- in, say,  
11       2000 to 2010, they -- this is -- this is a  
12       somewhat wild guess, probably 30 percent the  
13       defendants prevailed, and in recent years  
14       it's been 70-some percent.

15          Q.       Why is that a wild guess?

16          A.       Because I was just remembering  
17       back to -- so, well, I mean, I can be a  
18       little more -- I guess I can be a little more  
19       precise.

20               Okay. So going back to -- on  
21       the third page of Exhibit 3, defendants  
22       prevailed in Altman versus Bayer. This is in  
23       pharmaceuticals. Defendants prevailed in  
24       Axium Plastics, and then it was reversed was  
25       the last I heard.

1                           Neurontin, that was a direct  
2 purchaser case, and the class was certified  
3 in part and denied in part.

4                           Johns versus Bayer, I very  
5 definitely Dauberted in that case. I was  
6 accused of being rude to the opposing expert,  
7 which was true, but the case was dismissed,  
8 so that was never ruled on.

9                           I know I was not subject of a  
10 Daubert motion in Nexium.

11                          And I know that currently there  
12 are Daubert motions that have been filed  
13 against me in the Loestrin 24 antitrust  
14 litigation.

15                          Those are the ones I know of.

16                          Q.         Do you recall the subject  
17 matter of the Neurontin case?

18                          A.         Yes, off-label marketing.

19                          Q.         And do you recall what harm was  
20 caused by that marketing?

21                          A.         I was doing direct class  
22 certifications, so, no.

23                          Q.         Do you recall if there was harm  
24 to individuals from the conduct of the  
25 defendants in that case and their marketing

1 of Neurontin?

2 A. No, I don't recall one way or  
3 the other.

4 Q. Have you ever testified in  
5 cases that you consider to involve mass  
6 personal harm?

7 A. Not that I -- that wasn't ever  
8 the subject -- the product liability end was  
9 never the subject of anything that I was  
10 retained on, so I think the answer would be  
11 no.

12 Q. Do you have an understanding of  
13 what legal claims are alleged in this matter?

14 A. As it is described in my  
15 report, is the limit of my understanding of  
16 the allegations, yes.

17 Q. Have you ever done work  
18 apportioning damages in a case between and  
19 among different defendants or potential  
20 defendants?

21 A. No.

22 Q. Are you offering any opinions  
23 relating to apportionment of fault in this  
24 case?

25 A. No.

1 Q. Okay. Do you own stock in your  
2 own name in any pharmaceutical company?

3 A. Not that I know of. I own a  
4 lot of mutual funds that probably do have  
5 stock in pharmaceutical companies, but I  
6 don't know directly.

7 Q. Okay. So at this point or  
8 certainly since May 24th, 100 percent of your  
9 work is in the litigation and consulting  
10 area?

11 A. Uh-huh.

12 Q. Okay. In the last five years,  
13 it's been less than 100 percent, I assume?

14 A. Yes.

15 Q. How would you -- how would you  
16 describe it in the last -- well, putting  
17 aside this time period --

18 A. Sure.

19 Q. -- when it's 100 percent.

20 A. I think the main thing to  
21 understand is it's highly variable. So this  
22 past year was a fairly busy consulting year,  
23 so I would say that -- well, it's two things:  
24 It was a busy consulting year and an easy, if  
25 you will, teaching year. I'll explain that

1 in a second.

2 So I would say in the past year  
3 my time was probably 60 percent consulting to  
4 40 percent teaching and research. Two years  
5 ago, it was probably 10 percent.

6 Q. 2017 it was 10 percent --

7 A. Yeah, 2016.

8 Q. -- 10 percent litigation work  
9 and 90 percent academic work?

10 A. Yeah, it was just -- I maybe  
11 was working on one, maybe two cases, in that  
12 time, just there weren't -- I wasn't doing  
13 anything.

14 So it's highly variable, but I  
15 would say if you were to average over the  
16 last four years, it's probably about  
17 60 percent teaching and 40 percent litigation  
18 averaged over the five-year period.

19 Q. And what is the ratio of  
20 income, though?

21 I mean, that's the ratio of  
22 work hours, correct?

23 A. Right. So in the past year --

24 MR. DOVE: I'm going to object.

25 I believe special master has asked us

1           to focus on -- you know, obviously you  
2        may ask him questions about his income  
3        and these cases and about  
4        pharmaceutical matters and so forth,  
5        but doing anything that would allow  
6        you to calculate his income in other  
7        unrelated matters and his employment  
8        at the university and other unrelated  
9        matters, I think that's outside the  
10      scope of what the special master is  
11      allowing.

12           MS. GEMAN: And I think that's  
13      sort of inherent in the ratio, but --  
14      well, let's keep going and you can  
15      object if you think that there's a  
16      question that in your view runs afoul  
17      of any -- the spirit of any or the  
18      letter of any special master ruling.

19      QUESTIONS BY MS. GEMAN:

20      Q.       So, I'm sorry, Professor  
21     Hughes, can you -- you gave a ratio of work  
22     hours.

23      A.       Yes.

24      Q.       Averaged over the last five  
25     years.

1 How would that translate to  
2 income?

3 MR. DOVE: Objection for the  
4 reasons stated.

18 Plus they were courses that I  
19 taught numerous times before so there  
20 was not a lot of preparation time  
21 involved.

Okay. That said, the ratio of income is -- over that five-year period has probably -- it's really hard to say. The ratio of income is

probably 30 to 50 percent consulting versus the rest being teaching as an average.

4 QUESTIONS BY MS. GEMAN:

5 Q. So your testimony is that the  
6 consulting work hours is commensurate with  
7 the consulting/testifying work income  
8 roughly?

9           A.        Yeah, to the best estimate that  
10      I have sitting here today. I would have to  
11      go back and do the math to be more precise.

12 Q. And overall, would you say in  
13 the last five years how much income have you  
14 earned from a mixture of consulting and/or  
15 testifying on behalf of pharmaceutical  
16 companies and distributors in absolute terms  
17 versus relative to any other source of  
18 income?

19 A. Over the past five years?

20 O. Yes.

21                   A.         I would probably say several  
22 hundred thousand dollars.   Something like  
23 that.

24 (Hughes Exhibit 4 marked for  
25 identification.)

1       QUESTIONS BY MS. GEMAN:

2           Q.       Now, what's been marked as --  
3       what's been marked as Exhibit 4 is your  
4       report, and I know that there's some errata  
5       and so forth, but before we turn to that, I  
6       wanted to ask you -- and we will turn to  
7       that, no worries. But before we turn to  
8       that, I wanted to ask you to turn to  
9       Exhibit C, which is the appendix setting  
10      forth materials considered.

11           And can you let me know when  
12      you've gotten to Appendix C?

13           A.       Yes, I'm there.

14           Q.       All right. Are you drawing a  
15      distinction between materials considered and  
16      those relied on?

17           A.       Yes.

18           Q.       Okay. So which of these  
19      materials did you rely on in forming your  
20      opinions?

21           A.       Oh, I would have to compare  
22      this to the notes in the report. I could not  
23      tell you -- I could not go through the list  
24      and tell you sitting here today.

25           Q.       Is there anything here that

1       jumps out at you as something that you didn't  
2       rely on?

3           A.       No, I don't believe so.

4           Q.       How could one ascertain which  
5       materials you relied on?

6           A.       I think you would have to  
7       compare this list to the citations that are  
8       contained in the body of the report.

9           Q.       So it's your testimony that all  
10       of the citations in the report reflect  
11       matters that you relied on and any material  
12       cited in Appendix C but that is not in your  
13       report would be considered but not relied on?

14          A.       Never say never, but that's  
15       probably largely true.

16          Q.       Okay. So we would just ask for  
17       the materials that you relied on, if you  
18       think it's something other than the cites in  
19       the report.

20          A.       Oh, okay. Uh-huh.

21          Q.       Do you have a file of the  
22       materials you considered and/or relied on in  
23       this matter?

24          A.       Do you mean do I have hard  
25       copies of these?

1 Q. Any kind of file, electronic,  
2 hard copy?

3 A. Yeah, there are electronic  
4 copies of all of that -- all of the things  
5 that are in the footnotes.

6 Q. And how did you come to obtain  
7 those --

8 A. Well --

9 Q. -- materials?

10 A. -- because I started with the  
11 outline and the assignment that I gave to the  
12 staff at Cornerstone and sent them off to  
13 research and fill in the -- fill in the  
14 blanks in the outline. And so the materials  
15 that resulted was the materials that  
16 Cornerstone had identified at my direction.

17 Q. Okay. And so was it a file --  
18 the electronic file to which you referred,  
19 was that prepared by Cornerstone?

20 A. Yes.

21 Q. Was it sort of housed there or  
22 in their system?

23 A. Yes and no. In the end, there  
24 is a version -- okay. In the end there's a  
25 linked copy of my report so that and

1 electronically you can click on any of the  
2 footnotes and it will take you to the  
3 document that is being cited. And that was  
4 on their system, on my system.

5 Q. Okay.

6 A. But this is after the report  
7 was filed.

8 Q. And so the file of materials  
9 that you considered, was that -- did you have  
10 to sort of log into Cornerstone to get that  
11 file, or was it on your own system?

12 A. All of this I would have had to  
13 log in to Cornerstone's system and download  
14 it, yes.

15 Q. Were there any materials that  
16 you yourself added to the file?

17 A. Well, yes. If you refer just  
18 for a second to the table of contents, I  
19 mean, Section 4, Roman numeral IV, of the  
20 report, that is -- that's all -- I did all of  
21 that.

22 Q. Meaning you wrote that entire  
23 section of the report?

24 A. I wouldn't say the entire  
25 section, but I wrote the body and I had

1 Cornerstone fill in some of the sources. But  
2 I had many of the sources -- because as I  
3 said before, there was -- in almost every  
4 pharmaceutical report I've done, there's been  
5 a section similar to this, and so this  
6 section drew heavily on my previous research.

7 Q. How much of the report in  
8 general did you write?

9 A. Well, we had a system where we  
10 started with the outline, which basically  
11 started -- the outline started with  
12 Sections 4, 5 and 6, which were at a high  
13 level things that I -- things that were  
14 developed based on my experience and  
15 expertise. Some of the subheadings were also  
16 put into place, and then I asked Cornerstone  
17 to go off and to find sources that would  
18 relate to the points in the outline.

19 And then at that point we would  
20 discuss what the findings were, and at that  
21 point I would ask Cornerstone to take a crack  
22 at the first draft of the sections.

23 Following that, I would spend several hours  
24 doing a very heavy edit of that work to make  
25 sure that it's written in my voice, to make

1       sure that it is accurate, based on my  
2       experience and to make sure that it  
3       actually -- not actually, accurately reflects  
4       my opinion.

5                   So that by the time I sign the  
6       report, I consider that all the words in the  
7       report are mine.

8                   Q.       Who prepared the outline?

9                   A.       I did it jointly with  
10      Cornerstone through phone conversations, if  
11      you will.

12                  Q.       And did that outline sort of  
13      turn into a draft or did it --

14                  MR. DOVE: I'm going to object.

15                  I've allowed some questioning on this,  
16       but special master has made clear in  
17       his June 10th e-mail order that  
18       counsel may not ask about the amount  
19       or nature of time spent drafting the  
20       report itself or meeting with counsel  
21       to discuss the report.

22      QUESTIONS BY MS. GEMAN:

23                  Q.       I'm not sure this question  
24      falls outside that order.

25                  Just is the outline a separate

1 document, or is it -- I understand the rules,  
2 drafts are not discoverable, but I'm just  
3 asking if the outline is a separate document?

4 A. The outline is not a separate  
5 document. We start with the outline and  
6 then -- I don't know if you'd call it taking  
7 turns, but it would be clear is that, as we  
8 would say, you know, okay, Cornerstone has  
9 the pen, so they're doing -- so we're not  
10 editing over top of each other. And then  
11 where I would e-mail them and say, okay, I  
12 want the pen tonight or this weekend because  
13 I'm going to do work on it.

14 But the outline file, if you  
15 will, turned into this document over the --  
16 over the course of time.

17 Q. Did you interact with any of  
18 the defendants' other experts in your work in  
19 this matter?

20 A. No.

21 Q. Do you know if Cornerstone --  
22 strike that.

23 Do you know if your sort of  
24 team at Cornerstone interacted with other  
25 defense experts?

1                   A.         Not to my knowledge. I never  
2        heard of that, but I can't swear to it  
3        because I don't know what they did or didn't  
4        do.

5                   Q.         Have you reviewed any materials  
6        pertinent to this case since May 10, 2019?

7                   MR. DOVE: Objection as to  
8        form.

9                   THE WITNESS: No, I don't  
10      believe so.

11     QUESTIONS BY MS. GEMAN:

12                   Q.         Okay. And so the first  
13      category of materials considered is academic  
14      articles.

15                   Do you see that there?

16                   A.         Hang on. I closed it.

17                   MR. DOVE: This is Appendix C,  
18      Counsel?

19                   MS. GEMAN: Yes.

20                   THE WITNESS: Okay. Yes.

21     QUESTIONS BY MS. GEMAN:

22                   Q.         And did you personally review  
23      all of these articles and working papers?

24                   A.         No. These were -- I reviewed  
25      some of them. I reviewed some parts of

1       others, but the complete review of these  
2       articles was done by my staff at Cornerstone  
3       at my direction.

4           Q.       Did people give you kind of  
5       sections to look at from among those articles  
6       or sort of help you triage which ones to look  
7       at?

8           A.       No, not exactly. Well, let me  
9       put it differently. Sometimes somebody will  
10      say, well, this article was particularly  
11      pertinent, you know, especially Section 3,  
12      and it was my habit at that point to, if  
13      possible, to review the entire article; not  
14      just the, you know, hypothetical Section 3.

15          Q.       To the extent that any of these  
16      articles or working papers are actually cited  
17      in the report, did you review them in their  
18      totality?

19          A.       Not all of them, no.

20          Q.       How were the Bates-stamped  
21      materials that you reviewed selected?

22          A.       Again, this was -- Cornerstone  
23      was tasked with finding Bates-stamped  
24      materials that were relevant to the opinions  
25      that I was offering, and so these would have

1       been selected by Cornerstone.

2           Q.       Were you able to query the  
3       larger database of documents?

4           A.       Yes, we were able to. I did  
5       not do so personally, no.

6           Q.       Were there any documents that  
7       you expressly asked for, or did you feel that  
8       their selection was pursuant to your general  
9       instructions and complete?

10          A.       Yes, they were following my  
11       assignment, and I was -- as the information  
12       came in, I was happy with what they had  
13       produced for me.

14          Q.       Okay. And the depositions and  
15       associated exhibit section, this begins on  
16       page 7, do you see that, of Appendix C?

17          A.       Yes.

18          Q.       Did you read all of these  
19       depositions?

20          A.       I -- no, I did not read all  
21       of -- all of them. I read the vast majority  
22       of the Wharton and Applegate depositions, but  
23       I did not read them in their -- you know,  
24       probably read 60 or 70 percent of them, of  
25       those two. And then bits and pieces of the

1       others.

2           Q.       How did you come to review this  
3       particular group of depositions?

4           A.       These were people that, again,  
5       pursuant to my instructions that Cornerstone  
6       had identified who had opinions that were  
7       expressed in deposition that were relevant to  
8       the opinions that I was putting forth in my  
9       report.

10          Q.       Did individuals give you select  
11       pages or help direct you to excerpts?

12          A.       Not at that point. There were  
13       sections that were selected of these  
14       depositions that were cited in the report,  
15       and I looked at those. But, you know, when  
16       you're reading a deposition like that or  
17       you're directed to certain parts, it's kind  
18       of like when you go to the library looking  
19       for a particular book and you find that book  
20       and then there's ten other books on other  
21       side that you're interested in. So they  
22       might have directed me to a particular cite,  
23       but I usually ended up reading several pages  
24       before and several pages after to make sure I  
25       had the context of what was being offered to

1 me .

2 Q. Understood.

3 Who are Donald Wharton and Mary  
4 Applegate?

5 A. They -- okay. Mary Applegate  
6 is -- her exact place in the organizational  
7 chart, she's very high up in Ohio Medicaid,  
8 and I think that Dr. Wharton is like head of  
9 pharmaceutical -- the head of the  
10 pharmaceutical section of Ohio Medicaid.

11 Something like that. I actually don't  
12 remember exactly, but I believe they're both  
13 employed by Ohio Medicaid.

14 Q. Did you review any Amerisource  
15 documents?

16 A. No, I did not.

17 Q. And I believe I asked you  
18 before about plaintiff's expert reports. Let  
19 me now ask about defendants.

20 Have you read any expert  
21 reports submitted by defendants in this  
22 matter?

23 A. No.

24 Q. Okay. Do you know who  
25 plaintiffs' experts are?

#### 4 QUESTIONS BY MS. GEMAN:

5 Q. Okay. So what's being marked  
6 as Exhibit 5 is a list of the defense experts  
7 disclosed on May 10th in this matter.

I assume you've not seen this document before?

10 A. I have not.

11 Q. Okay. And can you tell me if  
12 you -- other than yourself, you obviously  
13 know yourself, can you tell me if you know  
14 any of the individuals listed on this  
15 document?

16           A.        Okay. Under Endo and Par, I  
17      know Henry Grabowski. And when I say "know,"  
18      I know by reputation. We've never met. I  
19      know of his work.

Under Henry Schein, I believe I  
know Dr. Maness, only to the extent that,  
again, if memory serves, he coauthored a  
paper that I used in my dissertation, I  
believe. But I don't know him personally at  
all.

1                   Under McKesson, I know  
2     Dr. Bell. He has on occasion been an expert  
3     on cases that I was also serving on. So, for  
4     example, he may do merits when I do class  
5     certification or something. That said, I  
6     don't believe we've ever met.

7                   Kevin Murphy I know by sterling  
8     reputation. He'll get the Nobel Prize in  
9     economics one of these days. He and  
10    Cockburn, I'm familiar with. I worked with  
11    him that -- that organization founded by  
12    Pfizer that we talked about before, the  
13    pharmaceutical economics something council.

14                  Q.       PEPC?

15                  A.       Yes, I knew him through that.  
16     Although we've talked on the phone, I've  
17     never actually met him.

18                  Robert Navarro, I know him  
19     through his work.

20                  And Daniel Kessler, if it's the  
21     Daniel Kessler I think it is, I know him. I  
22     know him by reputation, by his experience.

23                  And that would be it.

24                  Q.       So what is the scope of Henry  
25     Grabowski's work? You said -- you mentioned

1       you knew him sort of by the scope of his  
2       work.

3           A.        You don't mean on this case?

4           Q.        Correct.

5           A.        Oh, okay.

6                   Yeah, so his work, I would  
7       consider him to be a well-published expert in  
8       pharmaceutical markets. He's, in particular,  
9       done some good work on generic entry and the  
10      effects of the Hatch-Waxman Act, things like  
11      that.

12          Q.        And similarly, I think you  
13      mentioned you knew Robert Navarro through his  
14      work?

15          A.        Right. And Robert Navarro, his  
16      work is related to the payment system in  
17      pharmaceuticals, so he has done work on  
18      third-party payers and PBMs and the like in  
19      how -- how PBMs and the like operate, if I  
20      recall correctly.

21          Q.        And who is Daniel Kessler?

22          A.        If it's the Daniel Kessler I'm  
23      thinking of, he was commissioner of something  
24      at government, FDA or CMS or something like  
25      that.

1 Q. Are you thinking of David  
2 Kessler?

3 A. Oh. So -- okay. So that's  
4 David Kessler. Okay. So I don't know Daniel  
5 Kessler then. Thanks for clarifying that for  
6 me.

7 Q. No problem.

8 (Hughes Exhibit 6 marked for  
9 identification.)

10 QUESTIONS BY MS. GEMAN:

11 Q. And I'm going to introduce as  
12 Hughes Exhibit 6 my bespoke list of  
13 plaintiffs' experts.

14 There's a clean copy for the  
15 witness, and I wasn't able to white out some  
16 checks that I made had in mine, but I want  
17 you to have a copy.

18 And so I really would have  
19 preferred to make this just a demonstrative  
20 for you to look at it, but with so many  
21 people on the phone and it just seemed easier  
22 just to give out a piece of paper.

23 So what this is is a list of  
24 plaintiffs' exhibits -- plaintiffs' experts.

25 Do you know any of these

1 individuals?

2 A. I know a number of them by  
3 reputation. You know, I know their names. I  
4 don't know them personally.

5 And that would include Jonathan  
6 Gruber. There's David Kessler, now I'm on  
7 the right one. I know Thomas McGuire.  
8 Actually I worked for Thomas McGuire 50 years  
9 ago -- not 50, 45 years ago. I know Meredith  
10 Rosenthal. And I believe that's it.

11 Q. Okay. In what context did you  
12 work for Thomas McGuire?

13 A. So it is 1977, 1978, Professor  
14 McGuire is on the faculty of Boston  
15 University. I was a master's student in  
16 economics at Boston University, and I was  
17 assigned to Professor McGuire as his research  
18 assistant on some work he was doing. His  
19 initial claim to fame research was on mental  
20 health, issues involving mental health.

21 So I worked as a research  
22 assistant for Professor McGuire for a year  
23 and have not -- we haven't laid eyes on each  
24 other since.

25 Q. Was that a good experience?

1 A. Yeah, it was fine.

2 Q. Do you respect him as an  
3 economist?

4 A. As an economist, yeah, uh-huh.

5 Q. Would you say he has a sterling  
6 reputation?

7 A. I have not kept up with his  
8 work. I know that -- I mean, I would say  
9 that he has a -- I would certainly say that  
10 he has a great reputation regarding the  
11 economics of mental health. To the extent  
12 that he's branched off into other things, I  
13 just haven't followed his career in that  
14 regard.

15 Q. Fair enough.

16 And I think you said you know  
17 Meredith Rosenthal?

18 A. Yes, I do.

19 Q. How do you know her?

20 A. She has been the plaintiff's  
21 expert in at least a half a dozen cases where  
22 I have worked as defense expert.

23 Q. Okay. Have you met her  
24 personally?

25 A. Actually, no.

1 Q. And have you met Jonathan  
2 Gruber personally?

3 A. No, I only know him by  
4 reputation.

5 Q. Okay. What kind of work does  
6 he do?

7 A. Well, my recollection is he  
8 started out primarily as a labor economist  
9 and then he branched off into health, and I  
10 believe that he was an important economist on  
11 the group that put together the legislation  
12 that became ObamaCare.

13 Q. Have you done any work on  
14 ObamaCare?

15 A. No. I mean, I have been asked  
16 on a couple of occasions to explain the  
17 workings of ObamaCare to individuals and  
18 groups, but, you know, through the college,  
19 there would be like reunion weekend, and so I  
20 would be asked by the dean of the faculty to  
21 talk about ObamaCare.

22 Q. Do you know David Kessler  
23 personally?

24 A. Not personally, no.

25 Q. Have you ever heard him speak?

1                   A.         No. I have read deposition  
2         testimony by him, and I have probably read  
3         Congressional testimony by him. I believe in  
4         conjunction with my work on AWP matters.

5                   Q.         Do you consider yourself an FDA  
6         regulatory expert?

7                   A.         Well, it kind of depends on  
8         what you mean by FDA regulatory expert. In  
9         the course of doing that work that became the  
10       working paper known as Napsterizing  
11       Pharmaceuticals, one of the paths that I took  
12       on of the three coauthors there, one of the  
13       tasks that I took on was to come up with a --  
14       and I don't know quite how to put it. But  
15       basically to come up with a list of NDCs that  
16       have been -- I'm sorry, NDAs that have been  
17       approved by the FDA over probably the past  
18       20 years at that point and to learn about  
19       changes in their, you know, fast track  
20       system, changes in their requirements. So  
21       that part of the regulatory aspect I have  
22       known quite closely. I can't say that I've  
23       kept up with it in the last few years.

24                   But as -- would I have the same  
25       sort of knowledge of the workings of the FDA

1 as David Kessler, no, I would not, but  
2 there's aspects of it that I am very familiar  
3 with.

4 Q. Do you have familiarity with  
5 pharmaceutical marketing regulations?

6 A. Familiarity only, you know, to  
7 the extent that I've worked on a couple of  
8 false claims and a couple of off-label  
9 marketing cases, but outside of that, no.

10 Q. Other than Neurontin, which  
11 off-label cases have you worked on?

12 A. The Celexa and Lexapro cases  
13 had an off-label aspect to it.

14 And the -- I think the  
15 Risperdal case could be said to have had some  
16 off-label aspects to it, if I remember  
17 correctly.

18 Q. Have you ever undertaken to  
19 determine the extent of off-label use of a  
20 drug?

21 A. Well, in the Celexa and Lexapro  
22 cases, my task was to evaluate the accuracy  
23 and reliability of the plaintiffs' damage  
24 calculation, and part of their damage  
25 calculation involved the off-label marketing.

1 I critiqued their methodology,  
2 but I was not asked and I did not propose an  
3 alternative methodology.

4 And the same would be true for  
5 Neurontin.

6 Q. What were the off-label usages  
7 alleged to be occurring for Celexa and  
8 Lexapro?

9 A. Pediatric uses as I recall.

10 Q. Are they both anti-depression  
11 drugs?

12 A. Correct.

13 Q. And do you recall the outcome  
14 of the Celexa/Lexapro litigation? Did it  
15 settle? Did it go to trial, et cetera?

16 A. I believe it was dismissed. I  
17 believe it was dismissed. I could be wrong.

18 Q. Okay. And we talked earlier  
19 about the Neurontin matter, correct?

20 A. Right.

21 Q. And what was the off-label use  
22 of the Risperdal?

23 A. I don't recall specifically,  
24 but it was -- Risperdal is a mental health  
25 drug, and there was some -- if I'm

1       remembering correctly, and I may not be, but  
2       there was some mental health indication that  
3       there was an accusation that it was being  
4       marketed for that -- that claim was it  
5       shouldn't have been marketed. I may not have  
6       that correct, though. It's been a long time.

7           Q.       Did you do any study of any  
8       potential off-label use of Risperdal?

9           A.       No. There again, I was -- my  
10      assignment was to look at the methodology  
11      that had been put forth by the plaintiff's  
12      expert, so I did not -- I was not asked to  
13      and didn't construct one of my own.

14          Q.       Do you recall how that case  
15      resolved?

16          A.       Risperdal?

17          Q.       Yes.

18          A.       It settled somehow, and I don't  
19      know exactly. I have no idea what the terms  
20      were, but I know it settled.

21          Q.       Just to be clear, are you  
22      offering any criticisms of plaintiffs'  
23      experts here in this opioids case?

24          A.       I haven't reviewed any of their  
25      reports, so I don't have any basis to

1 criticize them in this matter, no.

2 Q. Okay. Do you have any -- so  
3 you have no opinions about the plaintiffs'  
4 experts' work in this case?

5 A. Their work in this case, no.

6 Q. Correct.

7 And do you have any knowledge  
8 of the types of analyses or methodologies  
9 they employed?

10 A. I do not know, not in this  
11 case, no.

12 Q. Okay. Do you want to keep  
13 going for a while, or do you want to take a  
14 break? We've been going more than an hour.

15 A. Let's go another 20 minutes or  
16 so and then we'll take a break.

17 MR. DOVE: I'm fine. I know we  
18 have lunch, but it will stay -- I  
19 think it's -- it will stay there for  
20 another 20 minutes. That's fine. All  
21 right. Whatever.

22 MS. GEMAN: Okay. So we'll go  
23 through the next -- I appreciate that.  
24 Unless you want to take a lunch break  
25 now?

1 MR. DOVE: I'm fine going on.

2 QUESTIONS BY MS. GEMAN:

3 Q. Okay. So let's, if we could,  
4 look from appendix -- move from Appendix C to  
5 Appendix D.

6 So tell me when you've had a  
7 chance to review it.

8 A. Appendix D of my report, right?

9 Q. Yes.

10 A. Yes, I'm there. I'm fine.

11 Q. Okay. And is this -- so are  
12 these instructions that you put together?

13 A. These are instructions that  
14 Cornerstone and I put together  
15 collaboratively.

16 Q. Okay. Is this all the  
17 instructions that apply to the importation  
18 and processing of the Ohio Medicaid claims  
19 data?

20 A. Yes, it's my understanding that  
21 this is everything that was done to clean the  
22 Ohio Medicaid data.

23 Q. Okay. And did you yourself  
24 investigate whether the duplicate  
25 observations were, in fact, real duplicates?

1           A.       Yes, in the sense that during a  
2 conference call with Cornerstone, they -- we  
3 went through all of this, actually, looking  
4 through examples in the data. And so we  
5 discussed at some length what the criteria  
6 for a duplicate observation would be, and  
7 so -- and then that's the definition that  
8 results here, all variables take on values  
9 identical to those of another claim or  
10 everything except the internal control number  
11 and the date were the same.

12          Q.       And did you -- was your working  
13 assumption of large scripts or large  
14 quantities dispensed was an error in the  
15 data?

16          A.       There was this business where  
17 suddenly every -- in that three-year -- I am  
18 sorry, three-quarter period where everything  
19 seemed to be inflated by a factor of a  
20 thousand, and so we made the assumption that  
21 that's what was going -- that that's what was  
22 going on.

23          Q.       And did you do any external  
24 investigation as to whether -- sorry, I -- as  
25 to whether there was, in fact, an error that

1 sort of multiplied the claims by a thousand?

2 A. I believe that Cornerstone put  
3 the question back to Ohio Medicaid, and they  
4 either did not get an answer or got an I  
5 don't know why that is answer.

6 Q. Okay.

7 A. But it was not -- if they  
8 asked -- if I'm remembering correctly, if  
9 they asked, they didn't get an answer one way  
10 or another.

11 Q. And in -- I'm looking at  
12 paragraph 10, which is the exclusion rules.

13 A. Right.

14 Q. So you excluded denied claims,  
15 correct?

16 A. Correct.

17 Q. And you -- and now I'm jumping  
18 to 3. Excluding claims for prescriptions  
19 that fell outside the sample time period,  
20 correct?

21 A. Correct.

22 Q. And then how did you define  
23 medication-assisted treatment?

24 Was that based on the MAT  
25 indicator?

1                   A.         Yes, as it says in note 11, the  
2 MAT claims were either H3T or H3W.

3                   Q.         Okay. And respond to opioid  
4 antagonists and opioid withdrawal therapy  
5 agents?

6                   A.         Yes.

7                   Q.         And do you recall what effect  
8 that exclusion had on the analysis?

9                   A.         No, I don't.

10                  But -- I don't know what effect  
11 that had except to say that there were many,  
12 many claims for medication-assisted  
13 treatment. It was not a small -- it was not  
14 a small number of claims.

15                  Q.         So what I'd like to do before  
16 the break is just make sure I understand who  
17 the folks were that you were working with at  
18 Cornerstone.

19                  A.         Uh-huh.

20                  Q.         And what was Jennifer McCabe's  
21 sort of function?

22                  A.         Jennifer McCabe really stepped  
23 in after the claim was -- not claim -- after  
24 the report was filed. The professional that  
25 had previously led the team, Lisa Tichy, had

1 to take a family leave, and so Jennifer  
2 stepped in sort of -- basically as team  
3 leader after that.

4 Q. And when did Ms. Tichy leave  
5 and get sort of replaced or subbed in by  
6 Ms. McCabe?

7 A. Pretty soon after May 10th. I  
8 don't know the exact date, but it was within  
9 a couple of weeks of that.

10 Q. May 10th of 2019 or '18?

11 A. No, '19. It was -- Dr. Tichy  
12 worked with us all the way up through the  
13 filing of the report, and it was only  
14 afterwards that Ms. McCabe took over as team  
15 leader.

16 Q. I see.

17 And you mentioned Ofer Cohen  
18 earlier today.

19 A. Uh-huh.

20 Q. Can you tell me what role he  
21 had?

22 A. Yes. He was primarily  
23 responsible for the document research and the  
24 data analysis. He was, I think, the person  
25 who -- we may find this out, but I think he's

1       the person who spent the most time on this  
2       matter in the course of forming the report.

3       Not only did he do much of the data analysis  
4       and the research, but he also, I believe,  
5       directed the analysts who assisted him.

6           Q.       And who was -- who is Sidharth  
7       Shah?

8           A.       Pardon me?

9           Q.       Who is Sidharth Shah?

10          A.       I don't know.

11          Q.       Who is Maria Vergara?

12          A.       I don't know. Both of them, I  
13       believe, were on one phone call with me. The  
14       name kind of rings a bell, but who they are  
15       or what exactly their role is, I do not know.

16          Q.       Who is Florian Rundhammer?

17          A.       Yeah, Florian was -- he was a  
18       member of the team that -- gosh, there was  
19       one section of the analysis that he headed  
20       up, and sitting here today, for the life of  
21       me, I can't think of which one it was.

22          Q.       Okay.

23          A.       But he headed up one of the  
24       sections of the research.

25          Q.       Who's Andrew Sfekas,

1 S-f-e-k-a-s?

2 A. I don't know.

3 Q. Who is Rebecca Nicoletti?

4 A. I don't know.

5 Q. Okay. Who is Andrea Goodman?

6 A. Again, I don't know.

7 Q. Okay. Who is Heather Gamberg?

8 A. I don't know. I assume all of  
9 these people are analysts in the Cornerstone  
10 team, but I have not had personal contact  
11 with them.

12 Q. Who is Yuxin Han?

13 A. Same thing, I think a member of  
14 the -- an analyst member of the team, but I  
15 have not had personal contact with that  
16 person.

17 Q. Okay. What about Amy Tingle?

18 A. Same thing, member of the team,  
19 but I have not had personal contact with  
20 them.

21 Q. Who did you interact with most?

22 Is that Dr. Tichy?

23 A. Dr. Tichy and Dr. Cohen.

24 Q. And doctor who?

25 A. Cohen, Ofer Cohen.

1 Q. Dr. Cohen.

2 Okay. And who is Samantha  
3 Chamblee?

4 A. I don't know. I assume a  
5 member of the team, but nobody that I had  
6 personal interaction with.

7 Q. Okay. Who is Kelsey Johnson?

8 A. Same thing, I don't know who  
9 she is. I did not have personal contact with  
10 her.

11 Q. Okay. What about Brennan Day?

12 A. I don't know that -- I did not  
13 have personal contact with that person. A  
14 member of the team, I'm sure.

15 Q. Okay. What about Ralph Blasey  
16 or Blasey?

17 A. Same answer, a member of the  
18 team, but I did not have personal  
19 interactions with him.

20 Q. And what office were these  
21 folks in, the ones that you did have contact  
22 with?

23 A. The ones that -- Dr. Tichy and  
24 Dr. Cohen were both in the New York office.

25 Q. And did you come to New York

1 and work with them, or was it mostly  
2 telephonic?

3 A. Almost all telephone. There  
4 was one occasion when I was at Cornerstone  
5 New York for a different case and we went off  
6 into a conference room and talked about some  
7 of the things that we were -- that we were  
8 working on at the moment, but it just -- it  
9 was serendipitous. It wasn't -- I didn't  
10 come down specifically for that meeting.

11 MS. GEMAN: Okay. I appreciate  
12 that. Should we do a lunch break?

13 MR. DOVE: Sure.

14 VIDEOGRAPHER: We're going off  
15 the record. The time is 12:15.

16 (Off the record at 12:15 p.m.)

17 VIDEOGRAPHER: We're going back  
18 on the record. Beginning of Media  
19 File 3. The time is 1:01.

20 (Hughes Exhibits 7, 8 and 9  
21 marked for identification.)

22 QUESTIONS BY MS. GEMAN:

23 Q. Good afternoon.

24 A. Good afternoon.

25 Q. So if I could please ask you to

1 look at what has been marked as Exhibit 7.

2 Do you see that?

3 A. I do.

4 Q. Do you know what this is?

5 A. Not specifically, but it looks  
6 like it is Cornerstone invoices in this  
7 matter. I've not seen it before.

8 Q. So you're not generally copied  
9 on their --

10 A. No.

11 Q. Do you receive any kind of  
12 summaries of -- not their work product, but  
13 the amount of their work?

14 A. No.

15 Q. And I can -- we sort of made it  
16 one exhibit for convenience, but, you know,  
17 this is the work from September 2018 through  
18 April of 2019. And if you look -- at least  
19 it appears based on the dates. And if you  
20 look at Exhibit 8, that is a document that  
21 appears to be an invoice that you submitted;  
22 is that correct?

23 A. That is correct.

24 Q. Okay. And do you prepare an  
25 invoice like this every month?

1                   A.         Yes, when I've worked some  
2 hours, yes.

3                   Q.         Yes.

4                   And you submit it directly to  
5 Ms. Morrison?

6                   A.         No, I submit it to a woman  
7 named Kristin at Cornerstone.

8                   Q.         I see.

9                   Have you met Erika Morrison?

10                  A.         I have not.

11                  Q.         All right. And your hourly  
12 rate in this matter has been \$900 per hour?

13                  A.         After the first of the year.

14                  In 2018, it was 850.

15                  Q.         Okay. How did you go about  
16 setting both last year's and this year's  
17 rates?

18                  A.         Basically what other -- it's  
19 just kind of like anything else, periodically  
20 you take a raise. There was no science to  
21 it.

22                  Q.         Okay. And do you know if  
23 there's any work that's been done on this  
24 matter that hasn't been billed?

25                  A.         Yes, everything that's been

1       done since June 1st has not yet been billed,  
2       at least as far as I go, and I assume there's  
3       also hours from Cornerstone as well.

4           Q.        Okay. And do you get paid  
5       monthly from Cornerstone?

6                   Let me rephrase. I'm so sorry.  
7                   For your own work?

8           A.        Right. Yes, basically I get --  
9       I get paid my hourly billings, I get paid by  
10      Cornerstone usually within the first 15 days  
11      of the month or so.

12          Q.        Okay. And how many hours did  
13       you work in June for which you have not yet  
14       submitted an invoice?

15          A.        Probably between 15 and 20.

16          Q.        Okay. You may have said that  
17       earlier in the depo.

18                   And do you know how many hours  
19       the staff collectively at Cornerstone have  
20       worked in June?

21          A.        No.

22          Q.        And what about in May?

23          A.        Cornerstone?

24          Q.        Yes.

25          A.        I have no idea.

1                   Q.         Do you have -- do you know how  
2       much Cornerstone has billed -- strike that.

3                   Do you know how much  
4       Cornerstone has invoiced on this matter?

5                   A.         I do not.

6                   Q.         Okay. Would it surprise you if  
7       it was over a million?

8                   A.         No, it probably -- no, it  
9       wouldn't surprise me because there has been a  
10      ton of work that has gone into this report,  
11      so that wouldn't surprise me at all.

12                  Q.         And you receive compensation  
13      from Cornerstone based on its collective  
14      staff billings; is that correct?

15                  A.         I do.

16                  Q.         Is that reflected in your  
17      hourly rate, or is that separate?

18                  A.         That is separate.

19                  Q.         Okay. Can you explain to me  
20      how that works?

21                  A.         Sure.

22                   So when I bring -- when I do a  
23      case with Cornerstone in exchange for giving  
24      them right of first refusal to the work and  
25      other activities I engage in in marketing

1 Cornerstone, I am compensated with -- by  
2 15 percent of their collected staff billings  
3 on each project.

4 Q. So how much have you received  
5 from Cornerstone for this project?

6 A. That's really hard to -- how  
7 much have I received in that kind of  
8 compensation?

9 Yeah, that's really hard to say  
10 because they pay twice a year. They pay in  
11 March and they pay again in November.  
12 November, yeah, November. And -- oh, I'm  
13 sorry, March and September. And they don't  
14 pay that compensation until they've collected  
15 from the client. So in the March payment, I  
16 know I would have received something on this  
17 project, but all of the projects that I work  
18 with Cornerstone are all lumped together in a  
19 single amount.

20 Q. I see.

21 A. But since it is up through  
22 March and it would had to have been paid and  
23 we weren't working all that terribly hard, I  
24 wouldn't expect it was a whole lot.

25 Q. So what you get twice a year

1 from Cornerstone is an amount that reflects  
2 15 percent of the collected billing on all of  
3 the work that you're doing with them?

4 A. All of the different cases I'm  
5 doing with them, yes.

6 Q. All right. And are you doing  
7 other cases with them right now?

8 A. Yes. Intuniv is one. I lost  
9 my exhibits here. Ah, thank you. Restasis  
10 and Intuniv and Thalomid and Revlimid are all  
11 with Cornerstone and active to one degree or  
12 another.

13 Q. And you say you give them the  
14 right of first refusal?

15 A. Yes.

16 Q. And so that means if you're  
17 approached about a case and you know you're  
18 going to need backup support, you go to them  
19 first?

20 A. Right.

21 And if they -- if it fits  
22 within their expertise, but generally if they  
23 do do a conflict check and sometimes they're  
24 conflicted out, and so then they can't help  
25 me.

1                   Q.         Now, in this case you were  
2 approached by Cornerstone?

3                   A.         Yes, I think that's the best  
4 way to put it.

5                   Q.         So does that same arrangement  
6 apply to cases when they approach you?

7                   A.         Yes, it does.

8                   Q.         And you mentioned you do other  
9 marketing in connection with Cornerstone?

10                  A.         Yeah, that's -- marketing is  
11 probably not the -- like I don't appear in  
12 commercials, but if there is interviewing for  
13 a case with a big joint defense group, I will  
14 come down to New York or Washington or Boston  
15 and join in the presentation as part of the  
16 team. And sometimes we get the case,  
17 sometimes we don't, so I do that.

18                  But I do that kind of travel  
19 and whatnot at my own expense.

20                  Q.         About how often do you make  
21 those trips with Cornerstone?

22                  A.         Two, three times a year.

23                  Q.         Are they usually in  
24 pharmaceutical cases?

25                  A.         Usually, yes. Not always, but

1 usually.

2 Q. Are any of the cases from your  
3 appendix -- well, now Exhibit 3. I think it  
4 was once Appendix B. Were they procured  
5 through such a presentation, if you remember?

6 A. The Skelaxin case, I think that  
7 was kind of a group -- that was sort of a  
8 group interview, yeah. The other ones  
9 have -- the other ones have been like  
10 one-on-one phone calls or meetings with  
11 attorneys.

12 Q. Any other activities in  
13 connection with Cornerstone other than those  
14 trips and the work -- case-specific work?

15 A. No.

16 Q. Have you ever had a  
17 relationship like this with other consulting  
18 firms?

19 A. If by "like this" right of  
20 first refusal, the answer to that is no. But  
21 I do with -- it's pretty typical now, no  
22 matter who I work with, that I will receive  
23 15 percent of their billings as compensation.

24 Q. And have you ever worked with a  
25 group called GLC?

1 A. No.

2 Q. So, Professor Hughes, if you  
3 look at what's been marked as Exhibit 9, it's  
4 a couple of different things, but  
5 collectively it was produced to us as a form  
6 of sort of errata.

7 A. Correct.

8 Q. Okay. First of all, other  
9 than -- and you can take some time and flip  
10 through that if you like. But other than  
11 what's reflected in Exhibit 9, are there  
12 other corrections or changes that you would  
13 like to make to your report?

14 A. No.

15 Q. Okay. All right. So can you  
16 tell us about -- or tell me when you've  
17 looked at it.

18 A. Okay. I'm sorry.

19 Q. Yeah, sorry.

20 Tell me when you've had the  
21 chance to look at Exhibit 9.

22 A. Oh, okay. Yes, I thought I  
23 missed a question. Okay. Yes, I have.

24 Q. Thank you.

25 So let's start with the sort of

1 cover page, which is page 69, and that --  
2 this is a replacement page 69, correct?

3 A. That is correct.

4 Q. Can you tell us what's  
5 different?

6 A. Yes. At the top of page 69  
7 there used to be three points and --  
8 actually, I should just look at what the --  
9 what it used to be.

10 So the sentence used to read,  
11 starting on 68, it said, "My analysis shows  
12 that Ohio Medicaid did not encourage  
13 utilization of abuse-deterrent opioids:  
14 Number one, it excluded several  
15 abuse-deterrent formulations from its  
16 Fee-For-Service PDLs." And that statement  
17 was not completely true because if you look  
18 at the exhibit that, I believe, is -- it's  
19 not Exhibit 2. It is 13? Yes.

20 If you look at the revised  
21 Exhibit 13 -- for some reason it's not marked  
22 as Exhibit 13 -- the first column says,  
23 "Number of FDA-approved abuse-deterrent  
24 opioids," and then compare that to the number  
25 of abuse-deterrent opioids on the PDL, the

1 original statement 1 implied incorrectly that  
2 all of the abuse-deterrent opioids appearing  
3 in the first column were actually available  
4 on the market and we discovered after the  
5 report was filed that while there were some  
6 that had been FDA approved, they were not  
7 actually available on the market. So it  
8 would have been irrelevant whether they were  
9 on the PDL or not.

10 So we removed that statement,  
11 that first statement, that they excluded  
12 several abuse-deterrent formulations.

13 And refer to note 2 on the new  
14 Exhibit 13, "The number of FDA-approved  
15 abuse-deterrent opioids available at the time  
16 the PDL was published."

17 Q. So you are no longer rendering  
18 an opinion that Ohio Medicaid excluded  
19 several abuse-deterrent formulations, or is  
20 your opinion that it did not exclude any  
21 abuse-deterrent formulations?

22 A. Okay. Let me see if I can  
23 explain it this way. So let's look at 2017,  
24 the number of abuse-deterrent opioids is 10,  
25 and the number of abuse-deterrent opioids on

1       the PDL in the second column in 2017 is only  
2       5.

3                                  Now, is the difference of 5  
4       because they were excluded from the PDL by  
5       Ohio Medicaid or is the difference due to  
6       those other five may have been FDA approved  
7       but were not actually available on the  
8       market. Since we could not tell the  
9       difference, we withdraw that claim.

10                              Q.       So in other words, you're not  
11       expressing any opinion about whether Ohio  
12       Medicaid excluded any abuse-deterrent  
13       formulations --

14                              A.       Correct.

15                              Q.       -- from its PDLs?

16                              A.       Correct.

17                              Q.       Thank you.

18                              Okay. So the next -- so the  
19       other documents that were part of the errata,  
20       I mean, we can start with Exhibit 13 since  
21       we're there.

22                              So do you see the document that  
23       says at the top right "Exhibit 13"?

24                              A.       Yes.

25                              Q.       So is this a revised

1      Exhibit 13, or is it just that you wanted to  
2      kind of produce it so that it was handy to  
3      discuss in connection with page 69?

4            A.        Yeah, I'm a little confused.

5      The Exhibit 13 is the revised Exhibit 13.  
6      I'm sorry, Exhibit 13 itself is not revised.  
7      The conclusions, the opinions that I render  
8      from Exhibit 13 have changed.

9            Q.        So should we remove this,  
10     what's been marked as Exhibit 13, from the  
11     errata?

12            MR. DOVE: Just to clarify the  
13     record --

14            THE WITNESS: Let me make sure  
15     I'm right about that.

16            MR. DOVE: Note number 2 might  
17     be different.

18            THE WITNESS: Well, that's what  
19     I was -- that's what I was expecting,  
20     but I was not seeing, so...

21     QUESTIONS BY MS. GEMAN:

22            Q.        Okay. Let's --

23            A.        Oh, that's true, Exhibit 13,  
24     the table has not been changed but footnote 2  
25     has changed, the first sentence. It used to

1 say that that column was "the number of  
2 FDA-approved abuse-deterrent opioids  
3 available on the market each year at the time  
4 the PDL was published."

5 And that's been changed to "the  
6 number of FDA-approved abuse-deterrent  
7 opioids available at the time the PDL was  
8 published."

9 Q. So how are you defining  
10 available?

11 A. FDA approved, whether it's on  
12 the market or not. So in the first version,  
13 the claim was they were available on the  
14 market.

15 Q. I understand.

16 A. Okay.

17 Q. So it's a little bit redundant  
18 because it says "FDA-approved opioids  
19 available"?

20 A. Fair enough. Yeah.

21 Q. But we now have clarity about  
22 what that means.

23 A. Yeah.

24 Q. Okay. So this is -- any other  
25 changes to Exhibit 13?

1           A.       No, that's it.

2           Q.       And did you spot this issue  
3       when you were reviewing your report after it  
4       was submitted, or how did it come to your  
5       attention that there was this issue?

6           A.       It was brought to my attention  
7       by Cornerstone because they had learned this  
8       by reference to the expert report of another  
9       defense expert.

10          Q.       Okay. So let's -- so can you  
11       tell us what these other documents are and  
12       how they're different?

13          A.       Sure.

14                   So Exhibit 2 in the original  
15       report was missing the rows of information  
16       for 2017 and 2018. And that was due to a  
17       last-minute programming typo. That was --  
18       MCP was changed to MCO or vice versa, and so  
19       the data disappeared for 2018 -- excuse me,  
20       so 2017 and 2018 were originally dropped  
21       accidentally, and then when the -- it was  
22       noticed after it was filed that this wasn't  
23       missing data but actually a programming  
24       error. The programming error was corrected  
25       and so now the correct numbers for 2017 and

1       '18 appear in Exhibit 2.

2           Q.        Okay. Thank you.

3                    MR. DOVE: Just for the record  
4                    and just so it's clear, because we're  
5                    dealing with exhibits that have been  
6                    marked highly confidential, I mean,  
7                    Exhibit 2 is supposed to be highly  
8                    confidential, and Exhibit 13, the  
9                    corrected version, highly  
10                  confidential. I believe the exhibits  
11                  you printed out, you printed out the  
12                  Excel file rather than the PDF which  
13                  has those labels, and that's why the  
14                  labels didn't come up.

15                  THE WITNESS: Ah.

16                  MS. GEMAN: That was -- oh, I  
17                  think I understand.

18                  So we -- I think you sent them  
19                  to us in both PDF and Excel, and we  
20                  printed them both in PDF and Excel.

21                  MR. DOVE: That may be -- I  
22                  just want to make sure they're --

23                  MS. GEMAN: Okay.

24                  MR. DOVE: That label --

25                  MS. GEMAN: No, I understand.

1 So just to be clear, so what --  
2 collectively the errata appears to  
3 consist of the replacement page 69,  
4 which we discussed, as well as the  
5 corrected Exhibits 2 and 13.

6 It appears that Exhibits 2 and  
7 13 were probably given to us in both  
8 PDF and Excel. For whatever reason, I  
9 don't know if it was our printing or  
10 what you sent, we thought they might  
11 be different because the version that  
12 does not say "highly confidential" has  
13 information that the PDF does not,  
14 namely the second and third pages.

15 Is that right?

16 MS. HAN: Right. So the PDF  
17 would just be the first, I guess, tab  
18 of the Excel sheets, and then the  
19 other information is the underlying  
20 data that was used to compile the  
21 exhibits of.

22 MS. GEMAN: Okay. So we  
23 thought these were four different  
24 documents, but it's really essentially  
25 two different documents?

1 MS. HAN: Right.

2 MS. GEMAN: One that is  
3 slightly more wholesome than the  
4 other.

5 QUESTIONS BY MS. GEMAN:

6 Q. Okay. So other than the  
7 changes to Exhibits 2, 13 and that paragraph  
8 or that clause in page 69, are there any  
9 other corrections or changes you wish to make  
10 in your report?

11 A. No. Outside of the  
12 modification to my testimony listed in the  
13 CV, which we've already talked about.

14 And just so we know for when  
15 we're done, I now have no idea what's  
16 Exhibit 8 and what's Exhibit 9. I've screwed  
17 it up.

18 Q. That's okay.

19 A. So we'll have to straight it  
20 out afterwards.

21 Q. Sure. Exhibit 8 is just your  
22 invoice dated March -- dated May 31st.

23 A. Okay.

24 Q. And then everything else is  
25 Exhibit 9.

1                   A.         Okay.  We'll find it.

2                   Q.         Yeah, and I had asked you  
3                   counsel and he graciously agreed that it  
4                   probably makes sense to just give another  
5                   report that has everything correct in it.

6                   MR. DOVE:  When do we want to  
7                   do that?

8                   MS. GEMAN:  Okay.  Thanks.

9                   Then we don't have to worry about  
10                  Exhibit 9 and so forth.

11                  QUESTIONS BY MS. GEMAN:

12                  Q.         Okay.  So and let me just ask  
13                  you, Professor Hughes, to turn to Exhibit 4  
14                  and confirm for us that it is your signature  
15                  on page 80?

16                  A.         Yes, it is.

17                  Q.         And is this a -- you know,  
18                  incorporating by reference the corrections  
19                  you just talked about, is this a full and  
20                  complete statement of the opinions you intend  
21                  to offer in this matter?

22                  A.         Subject to the reservation that  
23                  should there be new data or other new  
24                  information that comes to light that may  
25                  cause me to supplement my opinion, barring

1       that, yes, this contains all of the opinions  
2       I would intend to offer.

3           Q.        Okay. And if you could please  
4       turn to paragraph 8, and this paragraph  
5       recites the analyses you were asked to  
6       perform, correct?

7           A.        Oh, never mind. I went to  
8       page 8. My bad. I'm sorry.

9           Q.        Oh, it's page 3, paragraph 8.

10          A.        Sorry.

11          Q.        That's all right.

12          A.        Yes, paragraph 8 includes --  
13       lists the analyses that I was requested to  
14       perform.

15          Q.        And what is your understanding  
16       of the relevance of each of these analyses to  
17       this case?

18          A.        Well, to describe the market  
19       for prescription pharmaceutical products, the  
20       entities and the information and tools  
21       available to affect prescribing behavior.  
22       There's a couple of different places where  
23       that touches. Ultimately if there's any sort  
24       of price-related damages, there's a question  
25       of, because of the complexity of

1 pharmaceutical payments, who actually paid  
2 what.

3 There's the question of what  
4 information flows between the different  
5 entities, so what did the various entities  
6 know, how long have they known it.

7 The second point is related is  
8 what kind of information do the payers  
9 collect in the normal course of business that  
10 may be used to determine opioid prescription  
11 writing, opioid prescription usage and the  
12 like.

13 And then finally, as payers are  
14 the one entity that actually has tools for  
15 affecting doctor choices and patient choices  
16 and pharmacy choices.

17 The third part was to look at  
18 the tools that the payers may have available  
19 to them that would have allowed them to  
20 affect the demand for opioids and other  
21 alternative pain treatments.

22 Q. So it's your testimony that  
23 only the payers have access to tools to  
24 influence doctor and patient choices?

25 A. Not exactly. The payers have

1 unique tools that allow them to influence  
2 doctor and patient choices.

3 Q. Did you study the tools the  
4 manufacturer has to influence doctor and  
5 payer -- doctor and patient choices?

6 A. No. I was not asked to do  
7 that, no.

8 Q. Okay. And did you study the  
9 tools that the distributors have to analyze  
10 doctor-patient choices?

11 A. No, again, I was not asked to  
12 do that.

13 Q. All right. So are you  
14 suggesting or rendering any opinion about  
15 whether -- which group has the most ability  
16 to influence those choices?

17 A. I was not asked to do any sort  
18 of comparison, but except to say that the  
19 payers do have a unique standing in terms of  
20 having access to virtually complete records  
21 of the prescriptions that are filled by their  
22 beneficiaries and the pharmacies that fill  
23 them, and the payers are uniquely situated to  
24 implement tools like formulary placement,  
25 quantity limits, prior authorization, step

1 edits and the like, that can -- can and have  
2 influenced the number of opioid prescriptions  
3 that are dispensed and consumed.

4 Q. Would you agree that  
5 pharmaceutical manufacturers have some unique  
6 tools at their disposal to influence doctor  
7 and patient choices?

8 A. I wasn't asked to examine that,  
9 so I don't know.

10 Q. Right.

11 Well, earlier you agreed they  
12 had tools at their disposal.

13 Would you agree that they have  
14 some unique tools at their disposal?

15 A. Manufacturers? Maybe one, they  
16 get to set the price.

17 Q. What about distributors?

18 A. Again, I wasn't asked to do  
19 that, and I -- so I don't know whether or not  
20 they have any tools that would be useful in  
21 this manner.

22 Q. Okay. And have you studied the  
23 impact of manufacturers or distributors on  
24 formulary placement, prior authorization and  
25 the other tools that you uniquely ascribed to

1 payers?

2 A. I'm not sure -- could you try  
3 that question again?

4 Q. Sure.

5 Have you studied -- let's start  
6 for this report.

7 For the purpose of this report,  
8 have you studied the impact of manufacturers  
9 on formularies on pharmaceutical and  
10 therapeutics committees or other entities  
11 that create formularies?

12 A. I'm not aware that  
13 manufacturers have formularies. If I  
14 understood your question correctly.

15 Q. Yeah, no, I may not have been  
16 clear.

17 A. Okay.

18 Q. Have you studied the extent to  
19 which pharmaceutical manufacturers influence  
20 formulary decisionmakers through marketing or  
21 other means?

22 A. Oh, okay, right. No, I was --  
23 I have not studied that. I wasn't asked to  
24 do that.

25 Q. Okay. Have you studied that

1 question in any context?

2 A. Sure. To the extent that the  
3 practice of brand manufacturers giving  
4 rebates in exchange, for example, formulary  
5 placement, that is a topic that's come up a  
6 lot in, for example, class certification.

7 Q. Have you studied it in your  
8 academic work?

9 A. No, I have not.

10 Q. Okay. Have you ever studied  
11 that topic in any connection other than  
12 saying essentially pricing is too complicated  
13 for purposes of antitrust impact or opinions  
14 to that effect?

15 A. I'm going to ask you to  
16 rephrase that one.

17 Q. Do you understand my question?

18 A. No, that's why I asked you to  
19 rephrase it.

20 Q. Sure.

21 So how does it come up -- how  
22 does it come up a lot in class certification,  
23 this question of formulary placement or  
24 rebate -- you know, rebates or -- rebates in  
25 exchange for formulary placement?

1                   A.         Okay. So if you're talking  
2         about class certification and plaintiffs are  
3         attempting to -- plaintiff experts are  
4         attempting to present an accurate, reliable  
5         methodology for assessing injury and damages  
6         on a class-wide basis using common proof,  
7         rebates and the presence of PBMs  
8         administering rebates can, just to put it  
9         briefly, greatly complicate determining which  
10       of the entities, consumers, third-party  
11       payers, PBMs, pharmacies sometimes, who paid  
12       what for a particular prescription. And the  
13       rebates relate to formulary placement, which  
14       gets back to your original question.

15                  Q.         So would you say that  
16       pharmacies -- pharmaceutical manufacturers  
17       have a material impact on formulary  
18       placement?

19                  A.         Not all of them. I mean, for  
20       example, generic companies typically do not  
21       give rebates in exchange for formulary  
22       placement.

23                  Q.         And what about prior  
24       authorizations, have you ever studied the  
25       role of pharmaceutical manufacturers or their

1 employees in facilitating or assisting with  
2 prior authorizations?

3 A. No, I wasn't asked to do that,  
4 and I did not.

5 Q. Have you studied that in any  
6 context?

7 A. No.

8 Q. Okay. And turning to the  
9 second -- going a little bit backwards, I  
10 guess, through the bullet points in  
11 paragraph 8. The second bullet point reads  
12 that you were asked to, quote, "examine and  
13 describe the information on opioid  
14 prescriptions that were available to payers  
15 serving patients in plaintiffs'  
16 jurisdictions."

17 What is the relevance of that  
18 information to this case in your  
19 understanding?

20 A. Well, again, to the extent that  
21 there was a problem with the quantity of  
22 opioid prescriptions that were being  
23 dispensed and consumed as alleged, the  
24 question arises is what information did the  
25 payers have that would have allowed them to

1 monitor individuals, would allow them to  
2 monitor physicians, would allow them to  
3 monitor pharmacies in terms of how many  
4 prescriptions they were giving out, but more  
5 specifically to whom they were -- those  
6 prescriptions were being written, by whom  
7 were they being written, and the payers have  
8 the individual claims data that other  
9 entities do not tend to have, at least not as  
10 complete as what's available to the payers.

11 Q. And did you evaluate the  
12 information on opioid prescriptions that were  
13 available to the distributors?

14 A. No, the focus of my report and  
15 the focus of my assignment was restricted to  
16 payers.

17 Q. And is it your view that the  
18 payers -- or strike that.

19 Do you think it would have been  
20 helpful to compare the information that was  
21 available to the distributors relative to the  
22 payers, especially given the, you know,  
23 different incentives those different groups  
24 may have?

25 A. Well, again, that wasn't part

1 of my assignment, and I did not do it, but  
2 it's my lay understanding that individual --  
3 detailed individual claims data, like the  
4 payers have, is not available to distributors  
5 in the normal course of business because it  
6 doesn't -- they have no use for it in the  
7 normal course of business.

8 Q. What is your understanding  
9 of -- it's your testimony that distributors  
10 have no use for prescribing patterns  
11 generally in their normal course of business?  
12 I just want to understand your testimony.

13 A. Distributors have no use for a  
14 prescription in Bangor, Maine, from the Rite  
15 Aid on Main Street was dispensed to Bob Jones  
16 on December 3, 2017. That's not a piece of  
17 information that I understand a distributor  
18 would come by in the normal course of  
19 business, but it's something that would  
20 definitely be a piece of information or  
21 pieces of information that payers would have  
22 readily at their disposal because they're  
23 adjudicating that claim.

24 Q. I guess I was asking something  
25 slightly different, which is your statement

1       that distributors don't have a use for  
2       certain -- at least certain prescription  
3       information in their normal course of  
4       business.

5                   Do you have any understanding  
6       of how it might be important for distributors  
7       to monitor whatever data they do have about  
8       prescription information?

9                   MR. DOVE: Objection to form.

10                  THE WITNESS: Yeah, well, first  
11       of all, I don't think that was your  
12       first question, if I may say so.

13                  But I wasn't asked to examine  
14       anything about what the distributors  
15       had available to them or what they  
16       could have done with it. That wasn't  
17       part of my assignment.

18       QUESTIONS BY MS. GEMAN:

19                  Q.        Okay. Are you offering  
20       testimony that there was sort of nothing they  
21       could have done, they, the distributors?

22                  A.        No, I'm not offering any  
23       testimony regarding the distributors at all,  
24       almost none, aside from the availability of  
25       ARCOS data. But the -- otherwise, I'm not

1 offering any testimony about anything that  
2 the distributors could have or could not have  
3 done. It's not anything that I was asked to  
4 examine, and I did not.

5 Q. So you don't have an opinion  
6 sitting here now about whether it would have  
7 been sort of easier for the distributors or  
8 for the payers to monitor and/or take steps  
9 to prevent overprescription?

10 MR. DOVE: Objection. Form.

11 THE WITNESS: Again, I wasn't  
12 asked to examine it -- examine that  
13 question regarding distributors.

14 However, the payers -- it is my  
15 testimony that the payers had very  
16 detailed information from a number of  
17 sources that would both alert them to  
18 potential problems with opioids and  
19 they had the information in order to  
20 monitor individual players, individual  
21 pharmacies, individual consumers,  
22 individual doctors. And furthermore,  
23 had the tools to affect the  
24 dispense -- affect the prescribing and  
25 consumption patterns for opioids.

1       QUESTIONS BY MS. GEMAN:

2           Q.       So is it your opinion that  
3       that's the -- on a normative level, that  
4       that's the step at which that sort of  
5       monitoring and corrective action should  
6       occur?

7                   MR. DOVE: Objection to form.

8       QUESTIONS BY MS. GEMAN:

9           Q.       Versus more upstream?

10          A.       It's my opinion that that's the  
11       stage at which it could occur. Whether it  
12       should have or not, could it have been done  
13       sooner? Yes. The detailed patient  
14       information was available long before it was  
15       being used, as is outlined in my report.

16                   But exactly what firms should  
17       have done was not part of my assignment.

18          Q.       In paragraph 15, you state in  
19       the first sentence "that others may influence  
20       a physician's treatment decision."

21                   Who are or what are you  
22       referring to? You give an example in the  
23       next sentence, but is that a complete list?

24          A.       It is a -- for example, the  
25       patient and the payer and the -- or -- the

1       payer or the insurer can have an influence on  
2       the physician's decision.

3           Q.       And who or what else?

4           A.       Again, my report was confined  
5       to examining payers, and so payers are the  
6       influencers that I'm referring to as being  
7       able to influence the physician's decision.

8           Q.       I understand.

9                   But who -- you know, in terms  
10      of understanding your sentence, "others may  
11      influence his or her decision," his or her  
12      being the physician, who other than patient  
13      or payers --

14           A.       Yeah, I haven't --

15           Q.       And insurers and class sponsors  
16      can influence the decision?

17           A.       Yeah, regarding the opioid  
18      question, I wasn't asked to examine that, and  
19      I have not.

20           Q.       Okay. So you're not opining  
21      one way or the other as to whether  
22      manufacturers or distributors influenced  
23      physicians?

24           A.       Correct.

25           Q.       Okay. And starting on

1 paragraph 43, you talk about distributors.

2 Do you see that, from  
3 paragraphs 43 through 47?

4 A. Yes.

5 Q. 48, excuse me?

6 A. Sorry, yes.

7 Q. Okay. And again, did you  
8 examine any distributor data?

9 A. No, this is simply, as it were,  
10 a primer in the roles in the -- the roles of  
11 the different entities in the pharmaceutical  
12 distribution chain.

13 Q. And did you examine any  
14 suspicious activity reports?

15 A. No, I did not have access to  
16 those, to my knowledge.

17 Q. Can you describe your  
18 understanding of McKesson's system for  
19 suspicious activity reporting?

20 A. No, I wasn't asked to examine  
21 that, and I did not. Nothing related to that  
22 was given to me because it was beyond the  
23 scope of my assignment.

24 Q. Same answer for Amerisource?

25 A. Correct.

1 Q. And skipping ahead for a second  
2 to paragraph 70 on page 27, I can wait for  
3 you to get there.

4 A. Yes.

5 Q. All right. And you described  
6 four sort of analyses here, correct, in this  
7 paragraph?

8 A. Correct.

9 Q. All right. And you produced  
10 the data supporting these analyses?

11 A. Yes, in that it was converted  
12 into exhibits.

13 So in my report, I don't put  
14 all of the millions of observations, but the  
15 exhibit that was created from those millions  
16 of observations is included as an exhibit.

17 Q. Okay. And how did you select  
18 those particular analyses?

19 A. I'm sorry, I couldn't hear the  
20 last word.

21 Q. Sorry, how did you select these  
22 particular analyses or trends?

23 A. Cornerstone and I, we discussed  
24 what would be useful to decisionmakers if  
25 they were trying to monitor and identify

1       sources of opioid overprescribing or  
2       overconsumption.

3           Q.       And were there other analyses  
4       that you considered but you felt the data  
5       wasn't sufficient to permit it to be run?

6           A.       No, not really. These were the  
7       four that -- and again, things like doctor  
8       shopping and pharmacy shopping, doctors who  
9       prescribe large numbers and the trends over  
10      time, these seem to be the most important.

11          Q.       What is your understanding of  
12      how suspicious activity is defined?

13          A.       I don't have an understanding  
14      of how suspicious activity is defined. I  
15      simply in the exhibits categorized -- I'm  
16      sorry, tabulated the number of prescriptions,  
17      the number of MMEs or the like and identified  
18      where the 99th percentile was with the idea  
19      that one could reasonably examine the  
20      activities of the entities in the 99th  
21      percentile and above.

22          Q.       Does this report set out all of  
23      your opinions in this matter?

24          A.       To date. Again, should  
25      additional information or additional data

1       that is relevant become available, I reserve  
2       the right to supplement, but barring that,  
3       yes.

4           Q.       How certain are you of your  
5       opinions in this report?

6           A.       I would say I am extremely  
7       confident in the conclusions of my report.

8           Q.       Okay. And is there any  
9       information you don't have that would  
10      strengthen or weaken your opinions?

11          A.       Not that I can think of sitting  
12      here today, no.

13          Q.       And I'm not talking about  
14      unknown unknowns. I mean sort of known  
15      unknowns?

16          A.       There's nothing that I know of  
17      that would affect my opinion one way or  
18      another, I guess, is the answer your  
19      question.

20                MS. GEMAN: Could we take a  
21      quick break?

22                MR. DOVE: Sure.

23                VIDEOGRAPHER: We're going off  
24      the record. The time is 1:45.

25                (Off the record at 1:45 p.m.)

1                           VIDEOGRAPHER: We're going back  
2                           on the record. Beginning of Media  
3                           File 4. The time is 1:57.

4 QUESTIONS BY MS. GEMAN:

5 Q. Professor Hughes, I neglected  
6 to ask you earlier what professional  
7 organizations you are a member of?

8 A. None.

9 Q. And you had talked earlier  
10 about how you were, I think, a member of the  
11 American Economic Association?

12 A. I was at one point, yes.

13 Q. All right. When did you stop  
14 being a member of that organization?

15 A. Oh, probably 2007, 2008,  
16 something like that.

17 Q. Okay. Any professional  
18 organizations -- strike that.

19                           Have there been any  
20 professional organizations in the last ten  
21 years -- sorry about that.

22 So I was just asking have there  
23 been professional organizations in the last  
24 ten years that you've been a member of?

25 A. Last ten years, no.

1                   Q.         And then in the period 1995  
2         through 2008, other than the American  
3         Economic Association, any others?

4                   A.         I believe for a year I was a  
5         member of the Western Economics Association,  
6         which you had to become a member to register  
7         for the conference. So it wasn't that I  
8         wanted to be a member, but you had to go  
9         to the conference, but other than that, no.

10                  MS. GEMAN: All right. Okay.

11                  Well, we are done. Thank you for your  
12                  time.

13                  THE WITNESS: Thank you.

14                  MR. DOVE: Yeah, we have no  
15                  questions.

16                  VIDEOGRAPHER: All right. This  
17                  concludes today's deposition. We're  
18                  going off the record. The time is  
19                  1:58.

20                  (Deposition concluded at 1:58 p.m.)

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1 CERTIFICATE  
2

3 I, CARRIE A. CAMPBELL, Registered  
4 Diplomate Reporter, Certified Realtime  
5 Reporter and Certified Shorthand Reporter, do  
hereby certify that prior to the commencement  
of the examination, James Hughes, Ph.D., was  
duly sworn by me to testify to the truth, the  
whole truth and nothing but the truth.

7 I DO FURTHER CERTIFY that the  
foregoing is a verbatim transcript of the  
8 testimony as taken stenographically by and  
before me at the time, place and on the date  
9 hereinbefore set forth, to the best of my  
ability.

10

I DO FURTHER CERTIFY that I am  
11 neither a relative nor employee nor attorney  
nor counsel of any of the parties to this  
12 action, and that I am neither a relative nor  
employee of such attorney or counsel, and  
13 that I am not financially interested in the  
action.

14

15

16

*Carrie A. Campbell*

17

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CARRIE A. CAMPBELL,  
NCRA Registered Diplomate Reporter  
Certified Realtime Reporter  
Notary Public

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Dated: June 21, 2019

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1 INSTRUCTIONS TO WITNESS

2

3                           Please read your deposition over  
4 carefully and make any necessary corrections.

5 You should state the reason in the  
6 appropriate space on the errata sheet for any  
7 corrections that are made.

8                   After doing so, please sign the  
9       errata sheet and date it. You are signing  
10      same subject to the changes you have noted on  
11      the errata sheet, which will be attached to  
12      your deposition.

13                           It is imperative that you return  
14 the original errata sheet to the depositing  
15 attorney within thirty (30) days of receipt  
16 of the deposition transcript by you. If you  
17 fail to do so, the deposition transcript may  
18 be deemed to be accurate and may be used in  
19 court.

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1 ACKNOWLEDGMENT OF DEPONENT

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3

4

4 I, \_\_\_\_\_, do

hereby certify that I have read the foregoing  
5 pages and that the same is a correct  
transcription of the answers given by me to  
6 the questions therein propounded, except for  
the corrections or changes in form or  
7 substance, if any, noted in the attached  
Errata Sheet.

8

9

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12

James Hughes, Ph.D.

DATE

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## Golkow Litigation Services

Page 167

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ERRATA

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3 PAGE LINE CHANGE / REASON

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LAWYER'S NOTES  
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